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# Galaxy



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## Science Fiction

Syd Logsdon: TO GO NOT GENTLY

Greg Benford: THE STARS IN SHROUD

plus POURNELLE FABIAN WALKER





JULY 1-4, WESTERCON 31, Marriott Hotel, Los Angeles, Cal. Pro GoH: Poul Anderson. Fan GoH: Don C. Thompson. Membership: \$7 to June 1, then \$10. For info write: Westercon 31, P.O. Box 5785, Mission Hills, Cal. 91345.

JULY 7-9, UNICON 4, Sheraton, Silver Spring, Md. GoH: Theodore Sturgeon. Membership: \$5 until June 15, \$7 after. For info write: UNICON, P.O. Box 263, College Park, Md., 20740.

JULY 7-9, CONEBULUS 2, Syracuse Hilton, Syracuse, N.Y. Pro GoH: Ben Bova. Fan GoHs: Suford and Tony Lewis. Membership: \$6 to May 31, then \$7.50. For info write: Carol Gobeyn, 619 Stolp Ave., Syracuse, N.Y. 13207.

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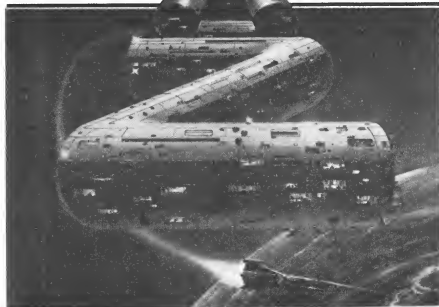
DEC. 8-10, PHILCON 78, Sheraton Hotel, Philadelphia, Pa. Membership fees and GoH to be announced. For info write: Meg Phillips, 210 Londonderry Lane, Darby, Pa., 19023.

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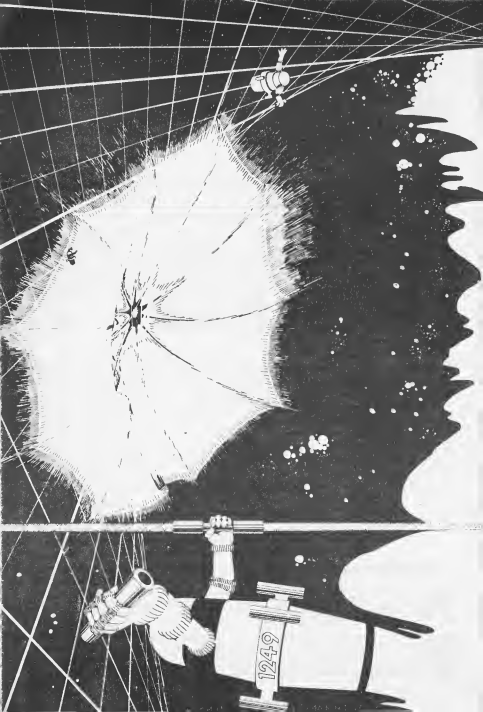
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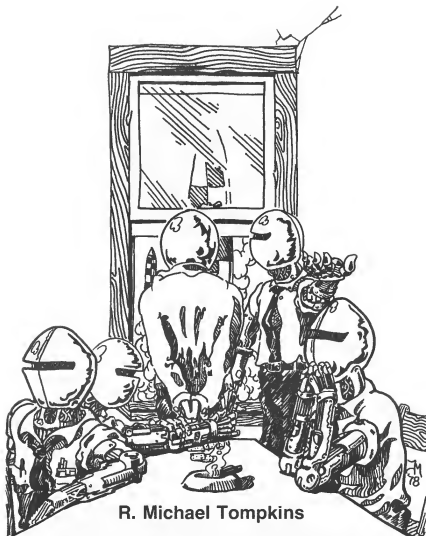


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R. Michael Tompkins

# HUNG JURY

## **A real post-Watergate president, yes sir! You'd never catch *him* going over the People's heads. . .**

MARCH 12, 1989 . . .

**"I**T'S REALLY NOTHING new," the technician explained to the President of the United States.

"We've always had a failsafe system for everything." He hesitated, careful where to tread with his words. "Everything, that is, except for the possibility of human error in this office. There has always been a chance of mistake by the President. We've lived with that flaw in the system for over thirty years. The Russians know it too. They might not agree but they know it could be a potential weakness."

The President was also careful in his choice of words. He was afraid of machines but he didn't want to display that reaction to the technician. "We must be absolutely certain that mankind retains control of nuclear weapons. Can you be sure these machines of yours won't take that control away?"

"Mr. President, I assure you they won't. This computer system will have *your* personal image imprinted within its memory banks. Four of your top advisors will also have *their* personal images in the system. The system, sir, will be you and they."

"Then why do we need the system?"

"Picture this, sir. The Russians launch an attack. You have five minutes in which to respond. Can

you gather your advisors and, using the human way, reach a decision with enough speed? It would be impossible. In that situation the response would have to come from one man—yourself. It would be made in confusion and in a great hurry. And, sir, I hesitate to say this, but there is always the chance that you would not be emotionally capable of pushing the button." The technician squirmed a bit at this last point, afraid that he had gone too far.

But the President only nodded slowly, unwilling to display any degree of enthusiasm for the technician's idea.

"The computers, Mr. President, will make their decision when *you* key them into action. The decision will be based upon your personal image, as programmed, minus emotional response. An emotionless finger on the button, sir, but *your* finger just the same."

"What sort of computers are these?"

The technician, warmed to his subject, leaned forward in his chair. "The sytem has been in use in air and spacecraft since the nineteen seventies. It's called a computer jury. Five computers vote on a decision. The majority rules. It's as simple as that, sir. If the vote is three computers to two, the minority is automatically over-ridden by the majority. Decisions are nearly

instantaneous with questions and votes. The system *cannot* fail."

"And what are the odds against the computer majority making the wrong decision?"

"I wouldn't venture a guess on that, sir. Perhaps our Data File Four thousand could work the problem if—"

"No need for that." The President waved the technician away. "Go ahead. Install the system."

MAY 15, 1989 . . .

The technician, tugging nervously on his watchband, waited for the President's answer.

The President, folding his hands, looked back at the technician with disbelief on his face and amazement in his eyes. "You want to test the system using *my* computer image and those of my advisors? Test it under simulated conditions?"

Horvath, the technician, nodded, a bead of sweat forming on his right temple. He had not anticipated this sort of reaction from the President. The system was nearly operational. All it needed was the programming and testing and it would be ready.

"It *has* to be done, sir! There's no oth—"

"Absolutely not!" The President's fist pounded the desk top. "My God, Horvath! Have you any idea of what would happen if the outcome of that little test ever leaked to the public? Or to the Russians?"

"I have a top-security clearance rating, sir. Only you and I would have to be present for the test."

"I wouldn't even trust *you* with *that* sort of information, Horvath.

The Russians know we have this system already, you can bet on it. And this system was supposed to be top-secret too."

Horvath shrank from the President's voice.

"Imagine, Horvath, if the Russians somehow managed to obtain the results of your little test. What if the results displayed an iron-fisted retaliation to a nuclear venture on their part? They'd know, Horvath. They'd know they would have to strike *now*, right away! Before your computers are operational. Because they would never have such an opportunity again. Once your computers are operational, there would be no doubt about our response to an attack. And doubt, Horvath, is what keeps the cold war cold."

Horvath stuttered and said weakly, "But . . . ."

"Or what if our computers tested the other way?" the President fired back, not allowing the technician any breathing space. "What if they voted *not* to retaliate, based upon my advisors' decisions programmed into the machines? Then if the Russians found that out, they'd attack us for certain."

"We still need a test, sir. Without it, the system isn't failsafe."

"No! I don't even want to know how my *advisors* would vote in the case of war. Once I knew, I might be tempted to rearrange the computer jury according to my own thoughts on the matter. I'm sorry. Test the system if you must, but don't use me or my advisors as test subjects. Select five of your own men for the test run. I can't allow you or anybody else to *know for certain* how we would respond to

an enemy attack." The President smiled at Horvath and leaned forward in his chair. "I'll tell you a secret, Horvath," he said kindly. "I actually don't know how I'd respond either. But then, that's the job of the computer, isn't it?"

Horvath, not wishing to be banished from the President's favor, wilted and quit the battle. "I suppose you're right, sir. There has always been a danger of leaks from the White House. If this leaked, it would present the Russians with an interesting subject for scrutiny. We'll test the system ourselves."

President Lyman breathed a sigh of relief as Horvath departed the Oval Office. He really didn't know how he would respond to a nuclear attack. And he didn't really want to know.

The President traced a circle on his scratch pad, absently breaking the pencil point. He shrugged finally and went back to work.

JUNE 6, 1989 . . .

Soviet Premier Lastovik drummed fingers on the Kremlin table as the Minister of Psychology urged his case. Ten generals listened intently to the talk of computers, politics, the make-up of men and war.

Lastovik stopped the psychologist in mid-sentence.

"Have you checked with this Krukov in the Ministry of Science?"

"Da."

"An honest politician?"

"Indeed."

"It will be enough?"

The psychologist nodded.

"Do any of my honored col-

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leagues in the military have a question?"

Silence surrounded the table.

"Then we have them!" Lastovik's fist crashed on the table top. "We have them!"

JULY 4, 1989 . . .

The President was awakened by Jackson, his military aide. He brushed Jackson's hand from his shoulder and, sitting up in bed, glanced at his watch. It was 4 a.m.

"Yes?"

"NORAD has bogies on the big screen, sir. SAC and TAC confirm. They want release of their weapons, Mr. President. General Trenton says this is the real thing. They're missiles, sir."

The President's stomach turned queasy with fear. He shook his head abruptly and reached for the computer outlet at his nightstand.

Matching the outlet key with one that hung from his neck, he activated the computer system installed just months ago by the technician.

Then he and the military aide bolted for the elevator leading to the White House bomb shelter.

The computers voted.

Two computers, representing dovish advisors, sided *against* release of weapons on the grounds that survival of humanity, either Russian or American, was of greater importance than war or its outcome.

Two computers, representing hawkish counsel, voted *for* release of weapons, hoping that quick retaliation might prevent a second Russian strike.

President Lyman's computer failed to make the first vote and

was still undecided by the fourth vote.

Seconds ticked by.

The tie-vote persisted, unbroken, Lyman's computer abstaining while it puzzled over the question's answer.

The computer "knew" Lyman better than he knew himself. Lyman was an honest politician, the computer understood, a man who truly believed himself to be the appointed representative of three hundred million people. Lyman *never* made an important decision without first consulting the people. Lyman *always* did what the people wanted.

What *did* the people want? What would *their* response be?

The other computers pushed a vote once more. Unlike Lyman's machine, they represented only their advisors, who represented only themselves.

The vote was tied again.

Then Lyman's computer, representing a President who represented three hundred million Americans, made a decision, finally.

Insufficient data. It did not know what the wishes of a majority of the citizens of the United States were concerning the question at hand.

And Lyman, the computer knew, *never* made a big decision without knowing where the people stood.

INSUFFICIENT DATA. It flashed on the computer outlet video tube on the President's nightstand.

The computer decided to do nothing.

The other computers voted again. And again. And again. . . .

Hung jury.

The Russian missiles fell.

There was no return volley. ★



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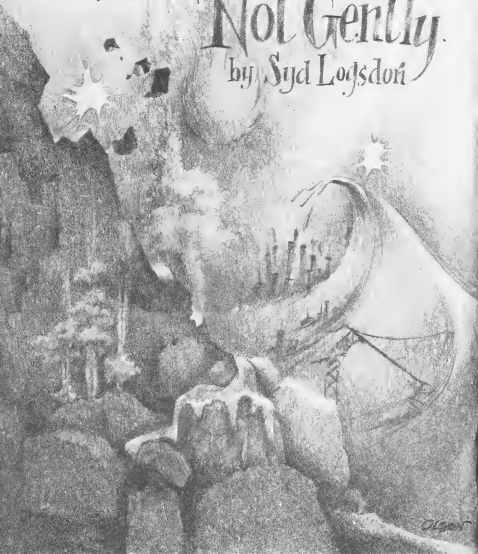
—Theodore Sturgeon



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# To Go Not Gently.

by Syd Logsdon



**Immortality of the body? Possible.  
Immortality of the soul? Well. . . just what  
is a soul?**

MILLENNIUM

**D**AVY MOVED THE coffeepot closer to the coals with his toe. The wind was cold where it found its way through a crack between two logs. *Have to chink that tomorrow.* Davy had had all of the cracks chinked but some were always falling out. The storm outside was still building, though the winds were already blowing a gale. Rain thundered down on the corrugated metal roof. He looked again, but there were no leaks; he had pitched the last one a week earlier.

Patrick Singer moaned in his sleep. Davy's eyes sought him out in the dimness. The fireplace shed the only light in the one-room cabin. Again Davy's father muttered but it was unintelligible.

"I should get Michael or Sarah to sit with him tomorrow night," Davy thought. He had hardly slept for three nights now, since Pa had taken the fever. The doctor could do nothing, or said he could not. You could never be sure with a Gentile.

The thought almost made Davy smile. He had been a professing agnostic for six months now but his prejudices still made him side with his own people, misguided as he now believed them to be.

No, he would not get Michael's help yet. There was no reason he could not catnap; after all, the doc-

tor had said there was nothing anyone could do. It was only a matter of time. And he had no intention of placing himself in Michael's obligation, no matter how hard it became to take care of Pa. Michael already blamed him for Pa's condition, saying that his defection had taken the heart out of the old man.

But it was seventy years of dredging a bare living out of the unyielding Ozark soil that had killed him—was killing him. Not anything Davy had done. He knew that and someday he might thank Michael for turning what might have become guilt into less harmful anger. Someday, but not now.

The coffeepot gurgled and Davy poured himself a cup of the steaming liquid. Chicory. He had developed a taste for real coffee at school but there was no affording it now.

He ought to wash Pa's face again but somehow he couldn't bring himself to disturb the old man. While he slept, he was in less pain. Davy let the bitter brew slip down his throat.

It was never easy, being a youngest son. When his brother Michael had been his age, there had been an older brother (Patrick, Jr., now dead) and Davy to help, and Pa had been younger and stronger. And Ma had been alive to give all



their labor some meaning. But Pat was dead, Ma was dead, Pa was dying and Michael had married and moved away. Therein lay the only consolation left to Davy—that he did not have to put up with Michael's sneering superiority.

The work that fell on Davy was too much and the farm was falling into disrepair. He no longer planted the highest hectares, and weeds grew around the place, but there were only so many hours in the day and once it had taken all of them just to do what he did now. And now he had to tend to Pa too.

There was a momentary lull in the storm before the rain struck the roof with redoubled fury, accompanied by the bell-like thrumming of hail. Patrick Singer cried out:

"Anne!"

But there was no Anne Singer to comfort him any more. Davy felt the first stirring of tears. Pa would not last out the night.

And the last six months of his life had been a torment . . . and it was all Davy's fault.

The chicory was forgotten, grew cold in the cup, as Davy's mind skittered back down the days.

\* \* \*

Davey and his father could hear the singing begin as they crossed the meadow. Slanting against the verdant hillside, rays of the setting sun fell over the Gulf of Texas, and below, the seaport of Little Rock sent up a foulness that seldom reached these heights.

It was somehow symbolic of the Millennium that men should work on as though nothing untoward had

happened, blissfully unaware that the Reign had already begun; oblivious to the fact that the outpourings of their pointless labor could not reach or unsettle the Elect. Once the thought had given Davy a feeling of superiority—but of late he had been drawn increasingly toward those very same fleshpots.

The church was of stone and logs, built with more care than most of the members' own houses. In winter an oil-drum stove made it a pleasant refuge against the damp and fog of the Ozark Islands, and often in summertime the elders would build an arbor of poles, roofed with chicken wire and rushes. There the services would proceed by the afterglow of the setting sun, occasionally enlivened as bats chased junebugs among the crowded aisles.

Now it was late fall. The leaves clung forlornly to the jackoaks, dead and sere. The oil-drum stove had brought the temperature up and Davy shed his jacket gratefully.

The Singer cabin and farm was five kilometers west of the meeting-house. The Singers could neither fertilize nor irrigate, the latter because of inclement geography, the former for reasons of doctrine that had never been clear to Davy. Life had been easier before his brothers left to make lives of their own. Of course he and his father could have taken jobs in Little Rock—but the Elect did not mingle with the Gentiles.

That is, they did not except when compelled by law. Four mornings a week Davy walked down to the town for compulsory schooling. His was the first generation since the

Tribulation to do so. Despite legal battles waged by the church hierarchy, the resurgent Federal government had stood fast on the subject of compulsory education.

There was some singing, some prayer, and then the Reverend Powell stepped up to the podium, slapping down his Bible and darting his eyes from face to face. He opened the book, announcing the seventh chapter of Revelation, a text that Davy did not need a Bible to remember.

*After this I beheld, and, lo, a great multitude, which no man could number, of all nations, and kindreds, and people, and tongues, stood before the throne, and before the Lamb, clothed with white robes, and palm leaves in their hands.*

Only the Gentiles still doubted that the Cataclysm had been Armageddon, or that the years following had been the Great Tribulation. Davy could not appreciate the fear that the Revelation of St. John had struck into Fundamentalist congregations like this one before the Cataclysm. Even the saintly John's description of blood running to the "depths of a bridle bit" could not rival the reality of nuclear war, nor were the "beasts" loosed in the last days anything but pale reflections of the mutations that had plagued the earth these last two centuries.

*And one of the elders answered, saying unto me, What are these which are arrayed in white robes? and whence came they?*

*And I said unto him, Sir, thou knowest. And he said to me, These are they which came out of the Great Tribulation, and have washed their robes, and made them white in the blood of the Lamb.*

Vaguely Davy wondered what it would have been like to have heard those same verses with Armageddon before him and without the certainty that he was among the white-robed Elect.

*Therefore are they before the throne of God, and serve him day and night in his temple: and he that sitteth on the throne shall dwell among them.*

*They shall hunger no more, neither thirst any more; neither shall the sun light on them, nor any heat.*

*For the Lamb which is in the midst of the throne shall feed them, and shall lead them unto living fountains of waters: and God shall wipe away all tears from their eyes.*

Davy had recently come across an ancient book in the archives of the school library that described the pre-Tribulation Fundamentalist sects and included transcripts of sermons preached before the last days. There he found these same scriptures quoted in descriptions of the Millennium to come. But people had taken them literally, and Davy could today attest that even in the Millennium a man still hungered and thirsted, and the Lamb fed men as he always had—by providing

seed and soil, rain and sun. The rest, as always, was up to man.

Reverend Powell shut his Bible and Davy's attention wandered, although he was careful to look attentive, as always. His mind slipped naturally into well-worn paths of perplexity. There were vast contradictions between the teachings of the church and the teaching he received at the federal school, contradictions he could not resolve; but what was worse, those contradictions had heightened his sensitivity to other contradictions *within* his religion. The difference between Revelation's description of the Millennium and the reality he perceived was one, but there were other, more pressing, problems. How, for instance, could a God who was both all powerful and entirely loving have allowed Armageddon to take place?

Davy did not know that he was posing the age-old mystery of omnipotence and omni-benevolence coexisting in an imperfect world. Nor did he recognize the question thus posed; his education had been rudimentary at best. He only knew that there was something seriously wrong with the beliefs of his elders.

Davy had always been close to his father and was free to ask his advice on any question but this. Instinctively he shied away from verbalizing his uncertainty, knowing that it was one subject with which Pat Singer could not cope. Two decades later, when time and death had utterly sundered them, Davy would recognize this inability as his father's immovable defense against disbelief.

"Just the other day a man from

Little Rock stopped me on the street." Some change in the rhythm of Reverend Powell's delivery caught Davy's ear. "He said to me, 'Powell. Powell, how can you call this the Millennium when you Millennialists spend your whole lives dragging a bare living out of the soil?' Then he quoted to me these same scriptures you just heard.

"Brothers and sisters, I tell you no Christian ever quoted scripture half so well as the Devil.

"I said to him, 'Mr. Jones, there are times to be clever but questioning God's word is *never* clever. I don't know why God chose to speak to us using physical terms in the scriptures but I know that I never hunger after righteousness, nor thirst after truth. He dwells with me every day, here in the temple of my heart, and He has cleansed me in living fountains of grace. He feeds me on His word and, Sir, He has wiped every tear from my eye; and I rejoice in His daily presence!'

"What care I if my belly is empty, if my heart is full? And what care I if God's enemies twist His words, taking symbolic statements as literal truth? What care I if they hurl lies in my face, as long as I have truth in my heart?"

A chorus of "Amen's" followed as Powell broke off on a high note. He paused artfully, leaning across the podium, letting silence fill the room; then he went on more softly.

"The Devil is wily and tireless. Even now, chained in the bottomless pit, he still influences the unwary. This poor man, whom I have called Mr. Jones, was not satisfied. Brothers and sisters, the Devil is *never* satisfied.

"He said to me, 'Powell, if God is all loving and all powerful, why did He allow the Cataclysm and the pestilence of mutations that followed?'"

"Brothers and sisters, the Devil is clever. He asks telling questions; be sure, he is no fool."

"I said, 'Mr. Jones, I don't know.'"

His voice had fallen to a whisper, but no ear missed a word. "'I don't know. But *God* knows, Mr. Jones,' I said. 'I'm only a man. I don't know why God does what He does, but I know that it is to my ultimate good. And how do I know? Because God loves me. He said in His Book that He loves me and I believe Him.'"

"That's faith, brothers and sisters. Faith. It's faith that raises man above the animals and faith that raises Christians above the Gentiles. But if I could understand everything, how could I have faith? If I understood, why would I need God?"

"I rejoice in my frailty, my ignorance, for only through it do I know the glorious feeling of utter, childlike faith in my Father."

He raised his hands and the congregation rose to sing. Davy rose with them, his heart pounding.

He could not believe. All his life he had accepted, passively, but he could not *believe*, actively. To do so was to deny self, to deny his own value and importance, and this he could not do. Rather, he *would* not.

And in the very moment that he refused belief, all the paradoxes and perplexities in his mind stood revealed, solved. What had seemed monolithic and absolute when view-

ed from within was shot through with idiocy and honeycombed with rot when viewed from without. The superstructure of doctrine crashed down around him in one warm moment of knowing.

It was all lies.

There was no Millennium; there had been no Armageddon—there were only madmen in conflict. There was no God. There was only man and his frailty reaching out for eternal life in the face of irrevocable death.

With assurance so utter that it thrilled him to the core even as it stripped him of all defense, Davy Singer knew—*knew!*—that there was only himself and death, black death, waiting at the end of the corridor of his life.

\* \* \*

Light slanting through the cabin window awoke Davy. He had begun the night in remembrance; then he had slept; and now he was uncertain when the remembering had ceased and the dreaming had begun.

The months following his negative conversion had been difficult. He had told his father somewhat of his new feelings, trusting him to understand partially at least, but in that he had underestimated his father's needs. There had been no understanding, just bitter recriminations.

Shaking sleep from his mind, he rose and went to check on his father. Patrick Singer was dead.

It took several seconds for the enormity of the event to sink in and then Davy hesitantly pressed his ear against the old man's chest. There

was no heartbeat; no sound of breath.

Davy backed away from the bed, torn between the need to run for a doctor and his unwillingness to leave his father. But as he regarded the open eyes and slack mouth, he realized that it did not matter. He could go or stay—but the dead stay dead.

He reached out to close his father's eyes. The flesh was still warm and he drew his hand back quickly. Uncertain, he tapped the aged cheek lightly. The head rolled sideways on lax muscles and Davy drew back again, spasmodic shivers overtaking him.

He reached out once more; found that he could not touch that dead, warm skin again, and pulled the blanket over his father's head instead.

Firmly believing in the Millennium, the old man had worked his life away, knowing scant rewards for all his labor. Believing in an afterlife, he had died secure. But he was just as dead as any atheist would have been . . . just as dead as Davy himself would someday be.

Somehow Davy had vaguely expected a great revelation at this inevitable moment, some sign that his agnosticism was merely the foolishness of youth. He had secretly hoped for just such an omen; but there was nothing—just an empty dried-up husk and the lonely sound of wind moaning about in the eaves.

There were tears then, hot and stinging, but there was something more too—the beginning of a slow burgeoning terror that would pursue him throughout his life.

## REBIRTH

### I

**T**ASMEEN INTERRUPTED Dave in midmorning. He was indulging in his favorite position—lounging in a decrepit armchair in the corner of the lab—reading a journal, his bare feet on the windowsill.

"Someone to see you in your office, Professor."

"Send him in here."

"I think you had better go to him," she replied, eyeing the disorder with mock distaste. Dave shrugged, slipped into sandals and followed her.

The reason for Tasmeen's unusual solicitude was soon apparent: Dave's visitor was in a wheelchair. He was a small-featured and handsome man, with a sober air, and the lap robe did nothing to disguise his legless condition.

"Professor Singh, this is Sri Nirghaz Husain. Sri Husain, Professor Ram David Singh."

Dave did *namaste*, touching his hands together before his chest and bobbing his head in a greeting, which Husain returned.

"What can I do for you, Sri Husain?"

Husain looked faintly embarrassed. "I was told that you are the Director of the Institute."

Dave nodded. "Yes, although that may not entail all that you think."

He pulled up a chair and sat down facing Husain. Tasmeen returned with a tray of tea and biscuits.

"Now, Sri Husain, you have to

understand what it is to be the director of this Institute. We are all researchers here and need no one to tell us what to do; the director simply shuffles paperwork and sees to it that the rest have money to work with. That's it. Each one of us takes his turn as director on a bi-yearly rotation and my term of servitude is up within a few days. After that Professor Mukerjee will be director, poor man."

Husain smiled despite himself. "You are not an Indian?"

"NorAm by extraction, Indian by citizenship and inclination."

"But still NorAm in your informality."

Dave smiled. "Perhaps. What can the Institute do for you, Sri Husain?"

Husain's brows came together and he hesitated. Then, "I understand that you are on the forefront of regeneration research?"

Suddenly Dave understood the man's reticence. "Your legs?"

"Yes."

"I'm sorry, Sri Husain, but I doubt that there is anything we can do for you. If we were able to regenerate human parts, you can be sure that it would be on all the news channels. We are working toward that end, and one of our members feels that she may be fairly close to it, but the techniques have not yet been proven."

"I am willing to take a chance, Doctor Singh, if the odds are at all favorable. To be so confined is intolerable."

Dave leaned back, drumming his fingers. Then he called out to Tasmeen. She put her head in the doorway and he said, "Ask Doctor

Mathur to step in if she can break away."

When she had gone, he turned back to Husain. "As I said, my role as director is a small one. Doctor Mathur is the expert on regeneration. You must understand, however, that our purpose here is to find techniques with which to overcome sterility. Regeneration research is directed primarily toward that end."

Shashi Mathur stepped in moments later with a smile for Dave—which she quickly hid. *Proper British formality lives on in India long after Britain is but a memory.*

Dave introduced them and she said, "Sri Husain. Sri Nirghaz Husain?"

He nodded. Dave looked blank. "Sri Husain is a famous polo player," Shashi prompted. Dave noticed her momentary hesitation over tense. "He is also the grandson of Sri Karji."

Suddenly a light dawned. The Premier, Jogendranath Kantikar—Sri Jogendranath Kantikarji when the honorifics were added. Out of affection and practicality, his followers had shortened it to Sri Karji. His grandson, Nirghaz Husain—now confined to a wheelchair—had been the chief negotiator for India in its disputes with Medina over the land recovered by the Panch-ab project.

Dave's embarrassment was written across his face and Husain chuckled. "I thought that sequestered men of science were purely fictional."

"No, I'm afraid that we are very real," Dave admitted. He studiously

avoided newscasts, but the more spectacular stories always managed to trickle through his defenses.

Nirghaz Husain was the son of Sri Karji's youngest daughter and a Muslim father, Parivar Husain. The daughter had left home at an early age, creating a scandal that Sri Karji's Parliamentary opponents would not let die. She had returned to India with her son after the Medinan Muslims had made life intolerable for her. Her son had gone back to Medina upon his father's death to inherit his fortune and to act as an unofficial emissary between Sri Karji and the Muslims. He had been there when the fighting broke out six months ago and had lost his legs to a bomb dropped by an Indian plane.

"Professor Mathur," he said now, "Professor Singh informs me that you are the expert on regeneration. My grandfather has said many fine things about your Institute; he suggested that I come here seeking aid."

Dave and Shashi exchanged glances. There had been nothing casual about dropping Sri Karji's name. If they succeeded in restoring Husain's legs, the sky would be the limit in financing for future research; but should they fail . . .

"I'm sorry, Sri Husain, but there is nothing we can do for you," Shashi told him gently. "Our efforts here are aimed primarily at overcoming the worldwide drop in birthrate following the Cataclysm. Only a few of us, such as Doctor Singh and myself, are pursuing lines of research in other areas of biology, and primary regeneration is not one of them."

"But Doctor Singh said that you were working on regeneration."

"Yes and no. Let me explain. We have had some success with primary regeneration where the matrix of tissue was not entirely destroyed. Consider the amputation of an arm, say between the elbow and the wrist. We could cause all of the muscles of the forearm to regenerate and we could then replace the bone with metal. But the hand? The fingers? There would be no matrix for their regeneration. In certain cases of limited avulsion we use this technique, but it would have no value to you.

"Furthermore, we have isolated hormones that cause 'stunted growth' so that today we are able to give treatment to a child whose limbs do not fully develop; but full, primary regeneration in living humans is impossible, at least within the foreseeable future. It has to take place in the embryonic stage."

Husain's expression hardened as though he were unwilling to believe her words.

"What I am doing is experimenting with the growth of replacement parts from clones," Shashi explained.

"Clones?"

She smiled. "Except for sperm and ova, every cell contains the genetic pattern of the entire organism. Certain lower orders, sponges for example, reproduce by budding off of ordinary cells. The new organisms produced are genetically identical to the parent organism. We can artificially stimulate ordinary muscle cells to replicate new organisms in a similar way among the higher orders.

"For example, we take cells from a donor rat, clone them, and grow a new rat identical in every sense to the original. Whole limbs from the clone can then be transplanted surgically to the original."

"Can you do that with humans?"

"No, not yet, nor any time in the reasonably near future. The problems involved are staggering."

"Nor are all the problems scientific," Dave pointed out. "Consider the rats. They are in every way identical; if they were human, what right would a man have to steal a part from his clone?"

"Also," Shashi went on, "if that were not a problem, consider the fact that in order to produce a clone with a body of your present age, it would require about twenty years of growth, by which time you would be forty. To be practical, cloning for replacement purposes would have to begin its growth at the time of the subject's birth."

"Have human clones been raised?" Husain asked.

Shashi nodded. "In China—before the Cataclysm—there were reported to have been human clones raised by implantation *in utero*. It is even told that a clone of Chairman Mao was raised, but that story is probably apocryphal. Since the Cataclysm, experiments with clones have been common. There are at present at least one hundred clone-conceived persons in India alone, some of whom are nearly thirty years old."

Husain was shocked. "I had no idea!"

"It isn't exactly top secret but it is not yet publicized. We think that such cloning may be a stop-gap

measure over the next several generations—until we solve the birth-rate problem."

"Then you could actually make a clone from my cells?"

"Yes, but if we did, it would merely provide you with a son, not a new set of legs. And that son would look and be no different from any other child, except that he would be your genetic twin. He might not even resemble you closely as he grew; environment has its effect too."

\* \* \*

Dave turned to Shashi after Husain had left. "You lied to him pretty badly."

"You mean Choudry's forced-growth enzyme? Why should I get his hopes up over an untried technique? Anyway, forced growth doesn't overcome the moral problems."

Dave stared at the door through which Husain had exited. "Perhaps."

Shashi studied him, disturbed by the implications of his speculative tone.

## II

*It hung in a void.*

*There was no sound, no light, no change of temperature and no gravity. It had hung thus since its birth, so that it knew nothing other than its self. Physically it existed; mentally it had never left the womb.*

*An umbilical cord brought it air and sustenance and the enzymes that forced its growth. And that growth was phenomenal—three*



*weeks from birth to physical maturity.*

Dave turned away from the meters on the sensory-deprivation tank and checked the readings on the computer. Nearby, in another tank, a bottle-nosed dolphin named Baba lay half-in and half-out of the water, narcotized and attached to an umbilical cord similar to that attached to the sensory-deprivation tank.

Dave made final checks all around and then fed a narcotic to the already mindless dolphin; it was needless now—but it would help his transition to sentient life. He closed a switch. There was a hum as other banks of machinery went into play, but the moment was largely unremarkable. The machinery utterly stripped the dolphin Baba of memory.

In the process, he died.

Dave confirmed that fact—and then opened the sensory-deprivation tank. For the very first time, light impinged upon the dolphin named Baba II.

\* \* \*

Dave was playing games with Baba II when Shashi came in later that afternoon. The dolphin frolicked about the large tank, entirely unaware that he had, in one sense, been living for only a few hours.

Dave greeted Shashi as she touched his hand and leaned down to stroke the dolphin's head. Then she froze in mid-gesture, staring at it; the tattoo that had identified the creature no longer adorned its

forehead. Drawing back, she looked at Dave with a mixture of wariness and shocked admiration.

"You did it!"

"Yes."

"And Baba is . . . dead?"

He shook his head. "Transmigrated. Baba's memories reside now in the brain of Baba II. Baba II *is* Baba, brain and bone."

Shashi watched in wonder as the creature shot about the tank. She herself had cultured the clone that now swam before her, and she had assisted Dave in the surgery that had implanted the foetus in a dolphin host mother. Raised from birth in a sensory-deprivation tank, it had had no memories and no personality of its own until now.

"Baba—the original Baba—is dead?"

Dave nodded, unconcerned, and then said, "Watch."

For twenty minutes he put Baba II through his paces and the dolphin responded beautifully, threading the intricate maze of wires and mirrors with their innumerable turnings and false leads. Dave had spent months in training Baba in that maze and it was one that no creature, however intelligent, could have traversed without error except through prior experience.

But Baba's memories now resided in Baba II, and since Baba II's body was a clone from Baba, it was identical in every genetic particular. By heredity and environment, Baba II *was* Baba, outwardly differing only in the slight pallor of II's skin and his lack of Baba's identifying tattoo.

After his run through the maze, Baba II came for his reward of fish

and remained to be fondled. As Shashi scratched him in all his favorite places, she realized that the situation would have been uncanny except that the illusion that this was the original Baba was so convincing that she could not react emotionally to the situation.

She and Dave left the laboratory at sunset, walked past the open stalls of Poona, buying *chappatis* and tea in an insulated container, and went on up to the park. There they sat quietly until the sky faded and those few stars that could compete with the city lights emerged. The air was chill and Shashi drew close to Dave; yet she seemed somehow restrained.

"What's wrong?" he asked her.

"Baba. I am deeply troubled by the implications of your experiment with him."

"I didn't kill Baba. I know you were fond of him; so was—I, but he is as alive tonight as he was this morning. Only his address has changed."

The faint attempt at humor failed. "I didn't mean that. I know I made a pet of him, but if he had to die, I wouldn't cry. I said that I am troubled by the implications, not the actuality, of what you have done."

"Meaning?"

"Meaning what happened to Baba's *atman*?"

"You don't really believe in that crap?"

"Yes, I do."

There was little he could say in the face of such calm assertion and he swallowed his irritation. "That which made Baba Baba was transferred from one body to the next. His *atman*, if you want to use that

term, is what was transferred."

"No, Dave. You know better than that. His soul, perhaps; you are the expert on Christian theology, not I. But not his *atman*. I know that I have led many previous lives, but do I remember them? No. The *atman* which is my essence, which goes with me from life to life, is not memory."

Dave shrugged, unwilling to argue theology. His knowledge of Hinduism was considerable but he could never hope to debate it with a native. Or a believer. It irritated him to think that Shashi could cling to what seemed to him to be superstition. More important, those beliefs might hamper his work—and his work was a matter of life and death.

"What will you do next?" she asked.



"With Baba, nothing. Since we are not yet at a clinical stage, it would prove nothing to repeat the transference to still another body. What I have to do next is to chose a short-lived but fairly intelligent creature and make a transference from an aged individual to a young clone."

"In search of immortality?"

"Yes," he replied tightly. "I also have to follow up some leads on sensory-deprived clones as donors for organ transplants."

A troubled look crossed her face in the dim moonlight. He turned to her. "You are thinking of Husain?" She nodded. "Forget it," he said. "By the time we get our techniques ironed out, Husain will be an old man."

"I know."

He moved closer to her. She had changed from lab coveralls to a flowing sari which did little to hamper his motions in the sweet darkness.

\* \* \*

Shashi Mathur had been married at twelve, consummated at fourteen. She had lived with her husband, a man of thirty-five, until she was sixteen. At that point she had turned her sexual attentions elsewhere, trying to let no fertile night pass without a bedmate, preferably a new one each month. In so doing, she was merely following the customs of the time. When births are rare, they are precious, and who can say what lucky coupling might prove fertile?

When Shashi was seventeen, her

husband died. By that time she was convinced that she was barren. In that she was merely ordinary. Faced with the prospect of an empty future, she took her meagre inheritance, left for Bombay and enrolled in one of the dozen prep schools that surround Deccan University. Now she was twenty-eight, certain of her barrenness, and working religiously to overcome that bane for her fellows.

As a professor, a widow and a *kshatriya*, she enjoyed high status and a rare freedom from constricting gossip. Her quarters were furnished with an utmost simplicity. She had a small brazier where she kindled a charcoal fire on those nights when the monsoon drove chill and dampness through the walls and windows. She often brewed tea there for herself or her guests, but never cooked. There were stalls of sweet-wallas within a five-minute walk, and she had her main meals at the Institute cafeteria.

Her single room was unfurnished save for cushions and a foam sleeping-pad. By day this was propped against a bare inner wall. Block-printed Madrasi hangings adorned the walls and thick rush mats covered the floor. A carved chest held her clothing. There was a row of books against one wall; the Gita, Vivekananda's works, Tagore's poetry. She kept her professional books strictly segregated in her office at the Institute.

By the light of candles, with incense sticks burning, she lit the brazier and made oblations to Agni. Then she settled into the lotus position.

Later, after her meditations, and

after she had extinguished the lights, her mind strayed back to Ram Singh, a name she preferred to the ridiculous 'Dave,' and his unnatural playing with the structure of reality.

\* \* \*

The summons came at noon the following day. "Sri Singhji?" The messenger bowed from the waist and Dave felt an irrational irritation at the obeisance. Messages proffered with the double honorific, prefix and suffix, usually meant trouble. It read:

Sri Kantikar of Bombay would appreciate your presence at his bungalow on Tagore Street at eight p. m., on the night of the twenty-fifth, to discuss a matter of mutual interest.

. . . J. K.

For a moment Dave was too stunned to take in the implications. So the Premier wanted to see him personally. And unofficially too—to judge from the fact that he signed the message without reference to his office. Dave had never met nor had any dealings with Sri Karji; he had never seen him except for newscasts. It could only concern his grandson.

Dave had known that Husain had not dropped his grandfather's name casually. Cold sweat formed on his face as he studied the note.

### III

**B**OMBAY WAS THE world's most modern city in both the best and the

worst senses of the word. The capitol of India since New Dehli's inundation, it housed an impressive neo-Ashokan capitol complex surrounded by a buffer-and-expansion zone of parks. Beyond that the city was aggressively utilitarian.

Even as early as the Cataclysm, India had been short of construction timber, although it supplied much of the world's decorative hardwoods. Adobe, rammed earth and stone were her building materials for centuries and still were—but with a difference. Now adobe bricks were made in huge factories, chemically stabilized and force dried. Rammed-earth walls were also chemically stabilized and made by special hydraulic rams and molds. Human labor was no longer a cheap commodity and with declining population, it would become more scarce as time passed, but electricity was plentiful from fusion reactors.

Stone had long been a major building material, but it too required massive inputs of human labor to quarry and lay. Now stone was quarried mechanically as gravel and fused into monolithic blocks *in situ* at a tremendous cost of power. All public buildings were of this magmastone, as were dams, the houses of the rich, public monuments and, of course, the great dykes of the Ganga and Panch-ab projects.

Dave debarked at Tagore station, skirted the power plant and strode toward Kulin Hill. His route took him through the Avenue of Abominations, where beggars from the whole of Maharashtra gathered. Some were normal enough, a few were amputees and accident or dis-

ease victims, but by far the majority were mutants. Unable to compete with their normal fellows and of execrable status (Sri Karji called them the "new untouchables" and begged Congress to pass laws protecting them, all to no avail), they were reduced to living on public pity. One was eyeless, an unbroken expanse of skin rising from his rudimentary nose to his hairline; another had a shriveled third arm projecting like a grotesque *lingam* from between her breasts; another . . . . They cried out to him as he passed, their arms waving upward from their lotus positions like anemones.

Kulin Hill rose like a tower of sanity. From its heights the city took on a certain geometric beauty as distance hid her less graceful aspects. The summit was surrounded by a ten-meter-high magmastone wall, pierced infrequently by small gates, and only the onion-domed turret that served its residents as an observation post was visible from the ground outside.

Out in the harbor, ships' lights were being switched on while deep beneath their keels, lost in the cold, wet darkness of the sea bottom, Old Bombay lay. One could take an excursion submarine to visit the ruins but Dave had always found the idea depressing.

The house within the wall was a disappointment. It was a faithful rendition of Indian architecture, but in magmastone and bitudobe it simply did not have the grace of Arjuna or Chitradurga. Of all the cities in India, Bombay was the least Indian; everything was a modern copy of past glories and thus lacked the

charm of the old and the boldness of the new. Even Poona, the Mecca of the modern Indian, still retained its old quarter.

He was led through the cavernous mansion and up the winding, open stairway to the observation tower. Here, beneath the dome in a glass-walled room whose clear panels had been thrown open to admit the night air, sat Sri Karji. He was lounging in a rattan peacock chair, surrounded by a scattering of manila-bound reports.

A tea service sat on a cart nearby and he responded to Dave's *namaste* by waving him to a chair. A servant materialized to serve the tea and chutneys and Sri Karji withheld conversation until they were alone. Somewhere within the house a sitarist was playing *Raga Rageshri*, an evening raga.

"It was good of you to come, Sri Singhji."

"It was good of you to ask me."

"How have you liked India?"

Dave put on a smile he did not feel. "Really, one does not ask that question of a native. I am a citizen, you know."

"Yes. Since last October, was it not?"

Dave nodded, having no doubt that Kantikar knew the exact date and anything else he felt would be useful. It was some relief to be a citizen of the Indian Commonwealth; at least he could not be deported.

Shot, but not deported.

"We have a number of scientists from other countries working in our universities. They bring a welcome change of orientation that often bears well on our problems. One

should always try to maintain a fresh viewpoint. Many of our visiting scientists eventually ask for asylum, especially those from Africa and the Andean Republic, and we never turn them away. However, we do not normally grant them citizenship, for political reasons."

"Of course," Dave murmured.

"You present a new situation. We have not found training in NorAm to be adequate, so I was surprised to find that one of our top scientists at the Institute was a North American."

"I took my graduate training at Deccan."

"So I discovered. You have risen high."

*Condescension disguised as praise. The civilized man speaking to the barbarian. What you really mean, old man, is that I am vulnerable.*

Dave shrugged modestly.

"I understand that you have met my grandson?"

"Yes. A sad case; perhaps in twenty years medicine can help him."

Kantikar changed the subject abruptly. "I understand that you are an agnostic—at least so it said on your application for citizenship. Yet were you not raised as a Pentecostal-Baptist?"

Despite himself, Dave gave grudging respect for the man's unabashed highhandedness. As Premier, his power was virtually unlimited and he apparently saw no advantage in hiding the fact, save behind a thin facade of courtesy.

"A Millennialist," Dave replied. "There are minor doctrinal dif-

ferences between the two."

"But you cast all that aside?"

"Yes, when I was fifteen."

"So I surmised after reading your article in the *Deccan Monitor*."

"I hope you don't rely on that article as an index of my sophistication. I wrote it for the school paper in my first year at Deccan and my command of NaiHind was anything but complete."

Kantikar waved the protest aside.

"The sense of your arguments came through despite any inadequacies of language. You believe that both the Christian concept of soul and the Hindu concept of *atman* are in error?"

"Yes."

"And that the only thing that exists is biological drive tied to experience—'tied by cords of memory' was your felicitous phrase, I believe."

"Yes."

"An old idea—not that you claimed it was not. But you carried it further by saying that if a man's biology could be replicated by parthenogenesis—cloning—and his memory transcribed, he could attain virtual immortality."

Tired of playing parrot, Dave said nothing.

"Once again, not a new idea. Yet you go on to say that man's religions have cheated him out of immortality by making him accept the idea of death; that these techniques of 'physiological resurrection' would have been perfected centuries ago had men really believed in their mortality."

Kantikar paused with an air of expectation but Dave simply shrugged once more. "You seem well

versed in what I wrote. I see no reason to enlarge upon it," he said.

"Such a philosophy must make a man quite desperate. To think that immortality is at hand but to fear that he might not be able to perfect its techniques before he dies—I do not envy you."

\* \* \*

It was some hours later that the conversation turned serious again. Throughout dinner Kantikar had refused to be drawn into any but the most trivial discussions and later he had been intent on the musicians and the Kathak dancers. Finally, as they sat back in rattan lounges on the terrace watching the moon on Bombay harbor and listening to the distant sound of Kantikar's resident sitarist playing in the courtyard below, each with a small waterpipe of *gunga* spreading its mild narcotic through their systems, Kantikar returned to the discussion.

"Doctor Mathur told my grandson that one reason she could not provide him with replacement limbs was that it would take twenty years to grow them. Yet my aides have discovered an article by Professor Choudry of your Institute that indicates that clone growth can be forced to many times its normal rate."

Dave was cautious in his reply. "We have had some success along those lines with laboratory animals."

"And human clones?"

"We have not attempted it with human clones."

"Yet if you did try it and failed, what harm would come? The human

from whom the clone cells were taken would be entirely unaffected."

"True. But we are not sure that a limb, its growth forced, would not adversely affect the donor after a transplant. Also, there is the moral aspect."

"That should prove no problem for you."

"Sir?"

Kantikar paused, gazing up at the moon, and then went on: "It is your philosophy, avowed in the article we discussed earlier, that memory is the only 'soul' a man has. A clone grown to maturity in a sensory-deprivation tank would have no memory and could therefore be used as a donor—with as much immunity from moral censure as a cadaver. That is your philosophy, is it not?"

Dave felt the trap closing and yet he did not regret it. It was a step that had to be taken eventually and if Kantikar ordered it, the blame would be his should public opinion rise in protest.

"By the way, how is Baba II doing?"

Dave actually grinned. "Well," he said and then added, "There is no guarantee that Baba II will not die tomorrow from some unforeseen complication, and that risk would run even higher for Husain."

"At this preliminary stage, we need not worry about that. When the time comes to take risks, we will all review the situation together and decide what is best."

"Will you send him by tomorrow?" Having come this far, Dave saw no point in further verbal sparring.

"To begin cloning? Very well, but he can stay only an hour. He is leaving for Medina on a mission of utmost delicacy."

Dave was suddenly aware of greater depths of machination than he had suspected. "You aren't just the doting grandfather, are you? You want to show the Muslims that they can be outdone. Nirghaz's crippling by Indian bombs was a major diplomatic blunder, wasn't it?"

Kantikar's eyes were cold. "That, Singhji, is none of your business."

#### IV

HUSAIN DONATED a cell sample which Shashi cultured for cloning. Developing a human clone was not greatly different than developing an animal clone and the apparatus of a mechanical womb could be set up quickly. The sensory-deprivation tank was another matter, however. It had to be larger and more sophisticated, but such tanks had been built before. It was a job requiring no new technology.

During the first five weeks of gestation no growth stimulants were used, but by that time a completion date for the sensory deprivation tank was reasonably certain and the Choudry enzymes were released into the fluid in which the embryo floated. A month later and the foetus had reached four kilos in weight and Dave, with Shashi's aid, transferred the infant to the tank that had held Baba II, carefully severing the fleshy umbilical and replacing it with a mechanical one that fit the orifices of the head.

\* \* \*

"Quite well," Dave replied to Husain's query. "Couldn't be better, in fact. The clone is in the sensory-deprivation tank that housed one of our test animals and it will remain there until the larger tank is completed. We aren't pushing its growth as much as we might because we don't want it to outgrow its present home before a new one is ready."

Nirghaz Husain bobbed his head in tense delight. It was obvious that he was only now allowing himself to hope. He had returned from Medina the day before after long and fruitless negotiations with the Muslims.

Dave wheeled him into an examination room and said, "Nirghaz, this is Doctor Choudry. In addition to being the man who developed the growth stimulant, he is also an accomplished surgeon, which neither Doctor Mathur nor I are."

Dave and Choudry lifted Husain onto the examining table, where Shashi unbuttoned his gown with asexual efficiency.

Dave drew a deep breath and held himself still. He had no bedside manner with which to cover this situation. Shashi turned away, but Choudry went on with admirable calm. "You did not inform us that your genitalia had also been lost."

"Amputated. Like the legs, they were too crushed to save." Husain glanced away but the expression in his eyes was hard and bitter. "So they said."

"Hmm."



Without looking up, Husain asked, "Is there any chance of transplanting that too?"

"Dammit, man, don't spring a question like that on me out of thin air. I don't know," Choudry replied.

Husain's belly and buttocks were a webwork of scar tissue and his body terminated in a blank and lumpy mass. Choudry probed and measured and then sent Husain away for x-rays.

\* \* \*

In the dimly lit office Choudry had taped a dozen x-rays, taken from all angles, on a battery of viewing boxes. He sat hunched over one, overlay paper and ruler in his hand, measuring, checking angles and occasionally pausing to calculate. He had been at it for better than an hour and Dave and Shashi had finally given up following the complexities of his work. They perched hip to hip on a desktop across the room, sharing coffee. It looked bad.

At last Choudry laid his paraphernalia aside and stretched, shaking his head. "No way."

"I can't believe it," Dave said. "Here we were prepared to use the latest techniques and even an entirely new donor source and we can't proceed simply because our surgery isn't up to it!"

"Let me put it this way, Ram. If he were lying on the table now as a fresh amputee and we had the parts available, I would try it. We would have nothing to lose because he would have only a slim chance of living either way. Frankly, I don't know how he managed to live. You

can be sure that the abdominal cavity was wide open; they certainly had to push his viscera back as they sutured."

Shashi shook her head. "Why did they go to such lengths for an Indian?"

"Politics," Dave fairly snarled. "The fact that Nirghaz was injured by Indian bombs was a diplomatic coup for the Medinans. Had he died, it would have soon been forgotten but now he is a walking—I mean a *living*—monument to Indian aggression."

"All of which doesn't help him or us one bit," Choudry went on. "Look at this. The left articular fossa is completely gone and the ilium has been trimmed. The head of the right femur is still in place and fused into the fossa. Any transplant would have to begin above that point and include the entire pelvic girdle. Surgery just isn't up to it."

"So who's going to tell him?"

\* \* \*

Dave did not go directly to speak with Nirghaz; instead he went to his lab, where Baba II greeted him with insistent snortings that stopped only when Dave scratched his head and tossed him a chunk of fish.

Science, Dave knew, proceeds by fits and starts, not so much because research is quixotic (although it is), but because a man can invent or discover only what mankind is ready for. Leonardo da Vinci's model helicopters were proof of that.

Had the time come? It was a delicate question concerning not so much the state of the art as the

spirit of the times. He had Sri Karji's support. There was money and power there; and in this state of near war, the label of "military secret" would amply cloak his work from the public.

But not from his colleagues. He still had not convinced Shashi of the un-humanness of a sensory-deprived clone, and Choudry had been hesitant. Would they have balked—in the final analysis—at cutting up a seemingly live and healthy human being for transplant purposes despite the fact that that human being was "merely" a clone? He was not sure. However, it loomed as a large possibility that they would have intervened with the transplant procedure even if medical reasons had not precluded it.

Or had they? Had Choudry deliberately misread the x-rays? No matter; either way, this new course of action was better for Husain. And humanity.

And himself.

He went down to the waiting room. Nirghaz had given up the pretense of reading while he waited and now he looked up intently at Dave's entrance.

"Can it be done?"

Dave stared at Husain for a long time before answering, "No, not by surgery. But . . . ."

## V

**B**ABA II SHOT across the tank, ducked under a bar and through a ring, described a complex spiral around a horizontal rod, doubled back—and faltered. Confused, he floated free for a moment, then rushed across the tank for a piece of

proffered fish and a scratch on the snout.

Sri Karji straightened up and shook his head. "An impressive display, I suppose, if I knew what it meant."

Dave slapped the dolphin on the side and said to Kantikar, "That is just the problem. You impressed me so much in our first interview that I assumed your spies had been thorough. They were not or you would know that what you just witnessed is the reason we have to have the Deliac computer. Your spies told you, correctly, that Baba II could thread a complex maze, using the original Baba's memories. What they did not tell you was that we trained Baba in five separate mazes. Baba II can do three of them perfectly, one not at all and the other one only part way before faltering."

"So your experiment was *not* a perfect success, as you said it was."

"You told *me* that my experiment had succeeded, not vice versa. And I assumed that your information was complete. In fact, the experiment succeeded admirably, and we know why it failed and the exact dimensions of its failure. We took every memory that Baba could give us in one burst of energy before she died. Had we taken the memories in increments and stored them in a computer bank, we could have had them all.

"But we did not have such a computer because of budgetary limitations. When you gave me the commission of rejuvenating Nirghaz, I assumed that you knew that the computer was necessary."

Kantikar stared, unseeing, at the frolicking dolphin. It was always galling to be outdone by a competitor; and to be caught up by one's own failings was doubly humiliating. Worse, it made all of his efforts to date useless unless he could come through on this latest demand. Of course it could be done. Anything, legal or illegal, could be done. But every such action left him open to attack and there were always those who were ready to pull down Sri Karji.

Nor should he divert even a fraction of his country's energies from the upcoming struggle for survival. The Deliac computer was an auxiliary set-up in the Deliac Air Force complex south of Poona. It was presently not being used but it might be needed on short notice.

Yet there was a debt to pay; and there was his affection, and there was his guilt. For it was Sri Karji who had ordered the airstrikes against Mahmet, knowing full well that his grandson was there but confident in the odds that the young man would emerge unhurt. It had meant surprise and it had given him a reputation for putting the good of the state above his personal interests. But the price . . . it was one thing to calculate chances beforehand and quite another to find oneself the loser afterward.

Nor had the airstrikes ended the Median menace; if anything, they had stiffened resistance.

It was bad enough that Nirghaz must regain his legs in a way so unorthodox that it smacked of heresy. Transplants were one thing; the transference of memory was another. Still, if Nirghaz were will-

ing, how could he, Kantikar, hold back?

"I will give the orders," he told Dave curtly.

After Kantikar and his entourage had left, Shashi found Dave leaning on the edge of the dolphin tank, his face lined and worried. As always, she was both drawn to and troubled by his iron control, so different from other men she had known. Even other NorAm men had not been like this. She had a brief vision of a creature trapped inside a drum of steel, crying out for attention, for understanding. What was that creature like? After two years of liaison with Ram David, she still could not truly say.

"Did you pull it off?"

Dave nodded and then shook his head. He staggered slightly as he moved across the room to drop into his favorite chair. She realized that he was emotionally exhausted.

"Shashi, if he ever finds out how I lied to him, I just don't know what he would do."

She patted his arm. "It wasn't your fault."

"The hell is wasn't. I should have put Baba II through his paces immediately but I was too exultant over my apparent success. Then came Kantikar's summons and the work with his grandson. I let basic caution slip."

"He doesn't know that."

"No, not now, but I'll always wonder when he might find out. If I pull this off, it will get me off the hook, but otherwise—"

"I? I thought this was to be a team effort."

"You know what I meant."

"Yes. I know that you meant

exactly what you said. This is your holy grail. You are working your way to heaven. First transfer Nirghaz into a new body, then clone a standby for yourself. And when you feel old age and death whispering at your neck, you'll run and hide in your fine, new, *young* body."

"Well, what's wrong with that?"

For answer she shook her head and said, "*Maya*."

"Sometimes you sound like a guru. This world is no illusion. Rebirth is the illusion."

"You say . . . but you have no proof that it is so."

"Nor have you."

"True," she said, unperturbed. "One does not look to illusion for proof of illusion's nonexistence."

They stared at one another, each firmly caught in his own neat, circular pattern of argument. Then she slid past the issue by settling in against his knee and taking his hand.

"Ram."

He smiled and let some of the tension drain away. "Yes, love."

"About my barrenness." He started, for barrenness was a subject of deep taboo that no barren woman would willingly discuss. "My ova are infertile but I am anatomically normal."

She paused then. He did not know what she was driving at; he already knew that she could carry an embryo to term were it artificially implanted, but there were tens of thousands of women who would willingly do that if fertile ova were available.

"Ram Singh, my lover, will you give me your child? Your clone child."

He was stunned. "Wouldn't you rather the child be of your own heritage?"

She shook her head. "Yours, love, yours."

He looked down at her sober, earnest face and was deeply moved. He nodded and she came into his lap, kissing him and crying.

\* \* \*

His fingers touched the bandage on his forearm where the tissue had been taken and he reflected on the reverse symbolism of that wound. Across the room Shashi worked deftly, lovingly, culturing the cells for cloning. It took her three hours. Sunlight slanted in from the west across the lab (so orderly in contrast to his) as she finished, still humming the tune with which she had begun the afternoon.

Casually he took her hand when she had finished but she pulled his face down for a kiss that was far from casual. He held her close, thinking that he had never seen her more beautiful.

"Tomorrow," she said, "I'll have Doctor Choudry to do the implant."

"Are you sure this is what you want?"

She nodded and smiled still more deeply. "Tonight we celebrate."

"How do you celebrate the initiation of a pregnancy?" he asked, deadpan, and she giggled outright.

\* \* \*

That night he moved into Shashi's quarters. They were crowded but it did not matter.

Neither of them gave much time to sleeping.

Whether it was his near brush with Sri Karji's wrath or Shashi's commitment to him he could not have said, but the urgency of his quest for immortality returned to him renewed.

The next morning he sent a letter to an old friend and professor in NorAm, James Brigham, whose accomplishments he had long since outstripped but whose wisdom he highly respected. That letter contained an outline of what he had done and the promise of detailed explanations to be forthcoming. He also instructed Brigham to prepare to publish his notes in the event of his death, feeling that once enough people knew of the resurrection process, nothing could prevent mankind from rising up to demand its universal implementation.

## VI

*Nirghaz lay back, immersed in the temperature- and gravity-neutralizing fluid, his head encased in a helmet that barred all sound, sight and smell. The salt water surrounding him was exactly 98.6 degrees; the air that moved into his lungs held progressively less oxygen and a carefully balanced percentage of carbon dioxide.*

*Respiration, metabolism and cognition slowly abated. There was no light, no taste, no touching and, of sound, only the gentle susurrant of incoming air.*

*Gradually the murmur of airflow changed to a pulsing whisper that lulled him still deeper into the*

*trance; and the soft voice, Shashi's voice, that had always been there just below the level of his notice, spoke to him of sleep and of childhood; and his mind, cut free, remembered.*

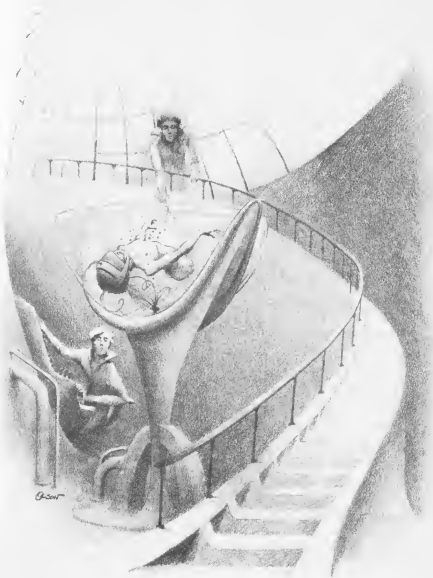
\* \* \*

Light! As the sleep had been beyond sleep, so the awakening was violent beyond any awakening he had previously experienced. His disorientation changed to despair as the laughing, running child he had been in his dreams became a legless horror once more. For a cold moment he was drowning in some gigantic, malign womb; then strong hands had ahold of him and he was lifted into the chilly air of reality. He pawed at the all-enveloping hood but it was cleverly latched and he had to wait, helpless, fighting claustrophobia, while the lab assistants removed it.

He lay still for a while beneath the light blanket they had put over his naked body, watching with small interest as the aides swabbed the saline fluid from the floor and then departed. Shashi came over with a smile to sit beside him and he reached out to take her hand, needing the touch of humanity to return him to the present.

Ram David was hunched over a typeset, engaged in a dialogue with the computer. His profile was frozen in a mask of utter concentration and there was no sound in the room but human breathing, the humming respiration of machines and the drip of salt water from the table where Nirghaz lay.

Nirghaz blinked back tears and



Shashi gently wiped his face. The memories dredged up were as fresh in his mind as though he had just lived them, not like those of a dream that vanish with awakening: the desert outside Kabul; his mother's delicate beauty; his stern father returning home after another attempt to settle the dispute his Hindu wife and half-caste son had raised; the bougainvillea vine outside his window down which he had climbed; the shouting, rock-throwing band of boys crying, "Hindu, Hindu, Hindu!"

Finally Dave switched off the console and came to stand beside Shashi. Nirghaz felt an unexpected rush of black resentment for the legs he walked on and for his manhood. Dave and Shashi made no secret of their liaison. Jealousy burned bright inside Nirghaz and he fought it unsuccessfully, for it was not Shashi that he wanted, but his own lost manhood.

Dave smiled wearily. "We got it."

Nirghaz nodded, too spent to feel elation.

"You were under a trance much deeper than is ever used in therapy, so anything we may have missed is unlikely to be crucial."

"You didn't get it all?" Nirghaz felt an irrational fear growing within him. To gain a new body but to lose a part of himself in the doing—unthinkable.

"What did you do on the afternoon of the fourteenth of May the year you were four years old?"

Nirghaz hesitated, then shrugged. "I don't know."

"You went out with your father to pick up some chutneys for your

mother and the taxi broke down on the way home. You were impressed by the way the driver repaired the trouble with a mere piece of wire and you learned a new obscenity listening to him."

Nirghaz still looked blank. "I don't remember."

Dave shook his head. "I didn't expect you to. It is unlikely that you will ever remember the incident although you will, of course, remember our discussing it now. Yet you brought it up under trance. In short, once the transference is complete, you could undergo standard hypno-analysis and never reveal any gaps in your memory. Anything we did not get, you have forgotten completely."

Nirghaz looked relieved. Dave continued, "We are up to age five now but future sessions will not progress as rapidly. Your recall of incidents will increase according to some as yet unknown exponent, so we will probably require thirty or forty sessions to obtain every memory on tape. The mind has an amazing capacity."

While Shashi went out for tea, Dave helped Nirghaz dress and then lifted him into his wheelchair. When Shashi returned, the young man had regained most of his composure and he accepted the mild, warm stimulant gratefully.

"Ramadav, one thing troubles me."

"What is that?"

"When you first acquainted me with the memory-transference concept, it was a one-shot method. One's memory was transferred intact from an old or broken body into a new, healthy one. I could ac-

cept that; after all, it was not that different from our concept of transmigration. But this use of multiple taping sessions and a computer . . . well, look at it this way. When I was five years old, my father took me out horseback-riding for the first time. You have that on tape?" Dave nodded. "But I still remember it."

After a long pause, Dave prompted, "So?"

"So when you have all of my memories on tape, I will still have them in my head. When you transcribe them into my clone, they will still be here in my head. *Which one will be me?*"

"The question won't arise," Dave assured him. "When we make the last tape—and the transference—we will terminate life support to your previous body."

Nirghaz could only stare in shock. "You mean that there will really be two of me and that you will kill one of them for the sake of a neat closure to the experiment?"

Dave gave back the desire to merely shrug. He had thought deeply along these lines and all of the legal and moral questions were resolved to his own satisfaction. Still, he knew the problematical nature of the question and was not sure that he could win anyone over by the same arguments he had used in order to still his own doubts.

"It will be like going to sleep and waking up to find your own body regenerated," he answered quietly.

"No. That is no answer. If you did not kill me off, it would be like going to sleep and waking to find someone with my memories and my

rejuvenated body going on to live a separate life while I remain tied to this body."

"That won't happen."

Nirghaz shook his head. "It isn't good enough. Look, I am no orthodox Hindu. If I were, I would be looking for release from rebirth, not a continuance of my life on earth. Yet I cannot simply follow your way. I *do* believe in an *atman*, an essence, and that essence cannot inhabit two places at once."

Dave ground his teeth. Shashi was sitting tensely, watching them both. He knew that she agreed with Nirghaz. "Look, when you go to sleep and then awaken, you don't consider yourself a different person simply because there is an eight-hour gap in your existence. It will be the same with the resurrection process."

"Maybe."

Shashi broke in, "Nirghaz, you are strictly a volunteer. If you don't want to go through with this, simply say so."

Dave gave her an angry stare which she chose to ignore.

"What other chance do I have?"

"There is the possibility of a brain transplant but the prognosis on that would be very poor. Otherwise you can simply go on as you are. You seem to have adapted well to your difficulties and your condition is no worse than that of many other cripples."

Nirghaz almost snarled. Looking at Shashi's soft womanhood, he did not—could not—desire her, but he remembered what desire was, and desire's consummation. Burning with shame and loss, he said, "For the time being let us continue, but I



have to consider this very deeply before we conclude the experiments."

\* \* \*

*X-ray and ultraviolet sensors probed it continuously where visible light could never go and where infrared sensors would have been blinded by the uniformity of temperature. Electrical discharges shocked its muscles into motion from time to time so that they would grow.*

*It had the appearance of a ten-year-old child, still floating foetal in the saline womb of the sensory-deprivation chamber. Resemblance to Nirghaz at age ten was superficial at best, for this body had never run, twisted, played or felt the darkening sun on its skin. Thin, flaccid, dead white, it floated blind in the eternal night and slept mindlessly on.*

\* \* \*

Within Shashi's womb, unhurried by growth stimulants, a natural foetus grew. It floated secure and ignorant of the unease that caused her to toss sleeplessly on her pallet.

Shashi shifted her weight again and Dave sought her hand. "Can't you sleep either?" she asked.

"No. I've been thinking; after we tape and reconstruct Nirghaz, I think we may be able to persuade Kantikar to continue our funding and perhaps let us continue using the computer."

"Probably. I'm sure he will be very grateful."

"I intend to tape myself."

He listened for censure in her

voice but the tone of her reply was neutral. "I knew."

"I want to tape you too."

There was a brief delay. "I knew that also. I won't let you."

"Why not?"

"I have no desire for rebirth—that way."

"Are you so content with a reincarnation that may not be more than an illusion—and which will not leave you your memories even if it were true?"

"Yes."

After a long time of silent breathing, he said, "Damn!"

She raised herself on her elbow and looked down at him in the dimness. "Ram, my lover and my love. You think only of the future; what of the past? Everything I am today—and everything you are, if you would just admit it—is the product of a hundred thousand previous incarnations. Every decent thing I do, every kindness and every attention to my fellow man, is the good within me that remains after the purging effect of a thousand other lives. If I could live on forever, just twenty-eight, just as happy in your love, it would be a kind of death. Never to change, never to be a child again, never to face truly new challenges, never to be reborn fresh and clean—what an awful fate. Death-in-life. That is what you offer."

"If you feel that way, why are you helping me with Nirghaz?"

"Nirghaz is a special case. We aren't giving him immortality, just a new set of legs and genitalia."

"It could lead to immortality."

"Yes. But I will have no part in that."

"Then you won't let me tape you?"

"Never."

"And if I tape myself?"

She didn't answer at once, so he prompted, "Shashi. Answer me."

"I think I may leave you."

"What?"

"I love you, Ramadav, but one lifetime is enough."

He turned away from her in anger and she did not try to call him back.

## VII

Dr. James Brigham  
Department of Biology  
Roanoke University  
Roanoke, Appalachia, NorAm

Dear Jim,

The political situation here continues to worsen, as you are no doubt aware. I fear that it may interfere with my work, but even more I fear that Nirghaz Husain may back out at the last minute.

I had hoped that by working in India, where the people have a conception of transmigration on which to hang the resurrection project, I would not have to contend with the same innate conservatism that I would have faced in NorAm. Damn all religions! They provide the contentment of illusion and prevent mankind from turning their vague promises of heaven into reality.

I find that *atman* is as insidious as *soul* ever was. Not that I really blame Husain for his reticence. I myself find it harder to accept the possibility of multiple, coequal individuals than to simply accept transference. But the alternative is

death, and death is no alternative.

However, if you don't really believe in death . . . you see my problem.

James, my old friend, I have given much thought to the ultimate implications of the resurrection process and it occurs to me that I am simply incapable, by temperament and training, of visualizing the incredible changes it will eventually bring about. My aims are so simple, so basic—plainly stated, immortality for myself. Dare I confess it?

There has never been any other motivation for my work than pure, selfish fear of death. Yet now I realize that I may not live to complete the work. You must have guessed that; you always were sensitive to others. Wisdom was never one of my attributes but I know myself well enough to know that intelligence is no substitute for wisdom. That is why I write you these letters, that and the fear—growing daily—that you will have to publish my notes eventually in order to see that the work is not lost. Be careful! Do not let the notes fall into hands other than yours.

I am rambling. It is past midnight now and I am very tired. Husain had another taping session today and left in a foul and depressed mood. If he turns away from the experiments now, we will lose *years*! At best, Kantikar will cut us back to our previous level of support, and I fear that he might become angry and cut us off altogether. The man's power is frightening and it grows in direct proportion to the imminence of war. And, of course, we may all die in a nuclear fireball before you even see

this letter. I shall try to send you updates twice weekly from now on, in case that occurs.

If it seems strange that one who has admitted selfishness as his only motivation should be so deeply concerned with the welfare of the world at large, and that he should also be so highly concerned to see that his work outlives him . . . well, frankly, I find it strange myself. No amount of self-analysis seems to account for it, so I merely commend it to you for study. You often understood me better than I understood myself anyway.

Enough misery.

Shashi is well and her pregnancy proceeds without complication. Birth is due in seven months. I wish that you could meet her. And, no, we will not marry. That is her decision, but you should understand that as a Hindu widow, her status would only be diminished by remarriage.

It is unlikely that we will be able to leave here until the Husain matter is decided one way or another, and I cannot advise you to come to India while war is threatening.

Until we meet again, know that you have been a true friend.

Dave Singer

Dave sealed the letter and laid it aside. He stretched and walked across the lab to the coffee pot, drew a cup and grimaced in distaste. The brew was thick, black and awful, but he watered it down and drank it anyway. It was past midnight and his head felt enlarged, his eyes stinging and hot. Shashi would be long since asleep. Outside, he had heard no sound for hours but the passing of the sentry.

There were always guards present ever since they had moved to the Deliac complex.

Nirghaz Husain had had the use of a sensory-deprivation tank and a battery of overseeing technicians. Dave had only himself. Settling the cap atop his head, he made sure that the electrodes pierced the appropriate points on his scalp. He felt light-headed as he settled back. After drawing a syringe of amber fluid, he sought and found a vein.

Then he began to recite, "*Om mani padme um* . . ."

\* \* \*

Terminating its run, the computer sent a preemptory jolt of electricity through the scalp electrodes, shocking Dave instantly awake. He tore off the cap, tears streaming down his face as the memory of his long-dead mother faded. For five hours he had been a child again . . . and now there was no one to ease his transition back into reality.

He staggered as he crossed the room. The computer chuckled, gurgled and hummed its mechanical contentment. If only the throbbing in his head would stop.

It took another hour to recover the first of his life tapes and to instruct the computer to forget the night's work. Then he walked slowly out to greet the sunrise.

\* \* \*

Colonel Mohan Bhatt, commandant of Deliac Air Force base, waited until a servant had answered the door in response to his ring.

Then he followed him into an inner room. The master of the house did not greet the Colonel or even admit his presence. If questioned, he would say that he had not had the pleasure of meeting Colonel Bhatt.

Gopal Bhargava, leader of the Loyal Opposition, met him in the inner room. The drapes were drawn. Bhargava waived Bhatt to a chair and offered him a drink, then raised his eyebrows.

"Well?"

This was the moment Bhatt had dreaded but there was little he could do to make it easier.

"I haven't much to give you. Kantikar has thrown such a net of security around that project that even a rat couldn't get through. I've tried to transfer some of my men into the place—no luck—and to bribe the men he put in. Nothing. I've thrown everything I dare against him and it all just bounced. If I try any harder, the whole world is going to know it."

Bhargava nodded, unperturbed. "Don't worry about it, Mohan. Kantikar has more trouble in Bombay than he can handle. What do you think of Ullah's actions?"

Ullah was an Indian Air Force general who had recently, through a deliberate but plausible misinterpretation of his orders, brought off a new series of bombings, this time deep into Medinan territory.

"Outstanding, and about time. Will the Medinans fight?"

"I don't know. I doubt it, not yet anyway. Ullah did well. I can't understand why Kantikar left him in command; his opinions were never very well hidden."

"It's just another proof to me

that the old man is slipping."

"Perhaps. Anyway, I intend to press Kantikar very closely now. Either he will carry on in a manner more suitable to the leader of India, or he will censure Ullah. In the case of the latter, we'll have him out on a vote of no confidence."

"Why not something more direct?"

"Assassination? Bhatt, you must learn to say what you mean."

"All right, assassination."

Bhargava swirled the pale liquid in his glass and considered. "Not now, Mohan. Our last attempt was a dismal failure. The only thing that saved us was the overeagerness of the Premier's guard. If that bastard had lived to talk, we'd both be facing a firing squad." He smiled at his nephew. "You don't really want that, do you?"

\* \* \*

His name was Ahmed but those who knew him called him Ram Lal. He had worked on the Ganga Project; he had tried to build a bomb into the speaker's podium where Sri Karji was to speak; he had failed. Then he had watched with satisfaction as one of Bhargava's agents had shot at Kantikar and had been disgusted that he had done such a poor job of it.

Of course the Indian government had blamed the assassination attempt on Medina, but Ahmed knew better. A Medinan agent would not have missed; Ahmed knew this for he was a Medinan agent.

Now he waited along the route that his contacts had assured him Kantikar's motorcade would take

the following morning, caressing a Traktonic Mark X. Ten rounds, rocket-powered, heat-seeking, and explosive.

Medinan agents were thorough.

### VIII

**R**AMADAV HAD warned him of what to expect. The taping would be no different than any other session—with the exception that he would be running down the memories of the last few months, reliving (without being aware that he dwelled in memory, not in reality) his decision to transmigrate; rearguing with himself, hearing again the inner debate and finally concluding once more that he would go through with the process.

In fact, he realized, at this very moment he might actually be in the sensory-deprivation tank, remembering these things, rather than sitting in his room thinking these thoughts for the first time. It was a disconcerting consideration.

But all that was familiar now. He had gained a great respect for the powers of memory over these last few months; although each session overrode the previous one, and he could no longer so clearly recall his childhood or his adolescence, he could remember how he had felt after the taping sessions and he remembered the feeling of remembering.

Memory of a memory . . . such confusion. He felt depressed and old then, and drew his cloak tighter about him.

What would be different (or was different if this were memory replaying itself rather than the original

actuality) about this taping session was that he would awaken within his new body. Against that, Ramadav had been most stringent in his warnings, for it would not be a pretty sight. His present body was merely truncated; the body of the clone was a wasted, white wreck. It had never seen the sun, never felt the pull of gravity. He would be bedfast for weeks, even months, as he gradually, painfully, nurtured it into health. Furthermore, it would be a younger body, that of a fifteen-year-old—old enough to contain his experiences, having the proper hormonal balance, but still young enough and resilient enough to withstand the necessary recovery regimen. Even after he had fully recovered, he would be living with the experiences of a man housed in the body of a boy.

To run again! To lie with a woman again! To be free from the attendance of nurses; to be free of pity. To once more meet men and women as an equal. The need burned hot within him, overpowering any hesitation or doubt, so that he yearned for the coming day and forgot his fear.

\* \* \*

Dave stepped outside just as the nurse was helping Husain transfer to the wheelchair. The young man looked up at him and grinned.

"This will be the last time I have to do this."

Dave could see worry and anticipation warring in his expression. He took the handles of the chair and wheeled him inside.

"Have you had any trouble with

Bhatt?" Nirghaz asked.

"No, not really. He's tearing his hair out because there is a secret on his base that he doesn't know about."

"Don't be too sure. I saw him this morning when I came aboard and he said, 'How much do you think you'll eventually pay for recovery?' He seems to know pretty much what we are up to."

Dave thought about it for a minute. "I suppose the type of equipment we've imported tells him something, and my research papers to date are freely available to anyone who is curious. Still, there is nothing he can do as long as your grandfather is Premier."

Husain nodded. "Indian politics are funny. They often work out along family lines. Bhatt is a nephew to the opposition leader in Congress."

"Really. That's some coincidence."

"Ramadav! Come up for air; get your head out of that computer and take a look at the real world. There is no coincidence involved when a half-competent light colonel gets boosted in rank and given a major post to command within a month of his uncle's becoming opposition leader."

Dave shrugged again, totally uninterested.

Shashi met them at the door of the lab with a smile for Nirghaz. There was no smile for Dave.

Nirghaz turned aside, asking, "Ramadav, are you sure that I can't have a look at the body I am about to inhabit? It might make my transition easier."

Dave shook his head. "Sorry."

"Where is Sri Karji?" Shashi asked.

Dave had said nothing on the matter but he also was surprised that Kantikar was not on hand for the culmination of Nirghaz's restoration.

"He wanted to be present but he has to give a speech in Udaipur at the headquarters of the Panch-ab project. It's an essential appearance," Nirghaz explained.

The lab assistants helped Nirghaz out of his clothing. The shame he felt was more than mere reaction to nakedness, but it was a small thing to endure in recompense for what would be his.

Dave carried over the helmet. It was made from a life cast, its pliable interior molded to every line and plane of his head. He shivered each time it was slipped over his face, cutting off all contact with the world beyond. Shashi always gave him a moment to regain his composure before donning it, but today Dave was handling it, and he was all business.

Darkness; a fumbling and tugging as the helmet was tightened. Tiny nipples spread his nostrils and the air had a faint metallic tang. It changed to a subtle perfume as the hoses were hooked up to the airflow monitor. Then there was a slap on his shoulder (Ramadav, no doubt) and hard hands caught him under the armpits.

Warm fluid; a feeling of drowning. The saline was of the same exact temperature as his skin and it buoyed him up. Within moments the sensation of wetness had passed and he was floating free, insulated from heat, light and the pull of

gravity. He heard a crash; then there was only the roar of fast-moving water and the susurrant of air.

The outer tank had been filled and sealed, barring all sound save any he himself chose to make. The umbilical cord was long enough to suspend him in the center of the tank, five meters' distance from each wall. He moved his hands but felt no sensation in them. Only proprioception and cognition remained—and hearing, for the pounding of his heart had become loud in his ears. And scent, for some chemical had been introduced into his air stream and consciousness began to fail.

Then there was the same sure voice—Shashi's voice—that always banished his claustrophobia and guided him back to the appropriate moment so that he began to remember . . .

Dave sat before the computer, his hands flashing agilely over the complex controls. Shashi stood before the monitors of the clone, continually testing and gradually bringing it up to the threshold of consciousness so that it could receive the memories that were to humanize it.

\* \* \*

The motorcade wound into view and Ahmed flipped off the safety, bringing the nylon stock up to his cheek. The crosshairs fell on the lead vehicle and held as it slipped past, as a second slipped past, and as the bubble-topped tram bearing Kantikar rolled into view. He pressed the firing stud. The projec-

tile said *fisssss*, fading, and the dome of the tram was lost in a burst of flame.

Ahmed fired again and again, knowing that one projectile alone would not burst that dome. The ground around him exploded from the guards' return fire. He lost his sight picture, rolled aside and waited for three interminable heartbeats. The smoke began to clear (he had carefully chosen a hill overlooking the ocean for the sake of its breeze) and he fired again. In the brief moment allotted, he had seen that the dome was cracked.

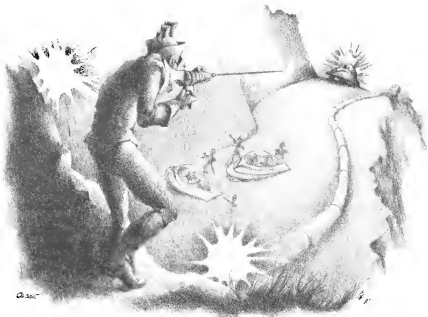
Then the world was torn apart about him . . . and he knew no more.

\* \* \*

The computer was able to transfer taped memories to the clone at the same time it recorded fresh memories from Nirghaz, but Dave waited for an hour until there was no risk that the taping would abort. Then he activated the computer into transfer and the first tape, taken months earlier, began to print itself onto the soft flesh of the clone's empty mind. It began to experience Nirghaz's childhood.

It would take as many hours to transcribe the tapes as it had required to make them, and although the process was a thousand times shorter than the original accumulation of those memories, it would still take better than one hundred and fifty hours.

Five hours passed before Dave began to relax. The final taping was through. Nirghaz lay quiescent in the sensory-deprivation tank; he



would remain thus until all the memories were transcribed to his clone. Then Dave would cut his oxygen.

This Shashi knew; yet as the moment approached, she began to fear. That final moment would not arrive until the transcription was completed some six days hence. Still . . .

She had pondered long and deep over the implications of the coming transference and its meaning for Nirghaz's *atman*. Would the essence of what was Nirghaz pass from one body to the next when the first was extinguished? She thought that it would, but who could be certain?

There was a sudden disturbance in the tank that Shashi tended. The clone had begun to writhe as it experienced life vicariously, but it was

well restrained. Carefully Shashi checked all the dials, then realized that she was holding her breath.

Dave left his console, stretching hugely, and walked around the room, checking monitors. Nirghaz's broken body lay secure in its deathwomb. His memories were quiescent in a sleep beyond sleep while transcriptions of those same memories were being fed to his clone. There was an electric tension in the air. Shashi sought Dave's attention with her eyes, but he was totally absorbed.

The clone jerked, trying to cry out through a mouth that had never known speech, and was restrained by the helmet. Dave leaned over Shashi's shoulder, further checking monitors, his face as expressionless as the smooth wall of the tank.

Shashi walked away, leaving him



alone to watch the progress. She should sleep now. Nirghaz had agreed to the project. He was her friend and he had walked (she shivered at that unintended thought) wide-eyed into this; it was her duty to him to carry her end of the process. She should sleep, for either she or Dave must remain on duty constantly through the coming days, and neither of them would dare leave the room unattended until the transference was completed.

There was a tray of sandwiches on the table. She was not hungry but she ate, thinking of Nirghaz and of her unborn child.

The assistants had left after helping place Nirghaz in the tank. No eyes but Dave's and her own had ever seen this room in action. She let her eyes sweep the interior of the huge abandoned hangar; pain and loneliness reflected back.

Dave now paced like a panther before the monitors, completely unaware of her. His feet scuffed the floor; the computer hummed; the clone writhed.

Otherwise there was silence.

## IX

**SHASHI WAS JOLTED** awake by a pounding on the hangar door. Dave looked up in irritation and she hurried toward the sound.

"Open up!" It was Bhatt's voice.

Shashi turned to Dave hesitantly. He shrugged.

"We can't open up now, Colonel," she said in a raised voice. "We are at a crucial point in our experiments. Anyway, you are not authorized to come in here."

"I am now. Open up or I'll have

the door knocked down."

Dave cursed and crossed the room. He drew the bolt and faced Bhatt as the man shoved in, flanked by armed guards. They scattered around the hangar, searching for other occupants and finding none.

"What the hell do you think you're doing? This is a top-secret project, authorized by the Premier himself."

Bhatt ignored him. "Where is Husain?"

"I ask again, by what authority do you break into a top-secret project?"

Bhatt rounded on him with a look of hatred. "And I ask again, where is Husain? Don't think you can hide behind Kantikar any more. He was assassinated at dawn this morning by a Medinan agent. Bhargava is in power for the duration of the emergency, or until new elections are held. You are no longer in a protected position so for your own sake, you had better cooperate."

Dave and Shashi exchanged looks of desperation. Why now, of all times?

"Husain is in one of the sensory-deprivation tanks," Dave improvised, "undergoing deep hypnotic analysis. This project is designed to bring up everything, however miniscule, he has learned in Medina for computer analysis."

Bhatt looked like a man who has walked full face into a wall. Clearly he had had some idea of what was going on but Dave's instant story was too plausible to ignore. If it were true, he had better tread lightly. His sources had given him a different tale but they could have been misinformed.

Dave saw his advantage and took it. "I don't know whose orders you are following, but if you don't keep your troops in control and let Doctor Mathur and me get back to our work, Husain will die, and then you will be in more trouble than you can handle."

Dave turned his back on Bhatt and walked to the computer console. He halted the transcription to the clone. His face was as bleak as Shashi had ever seen it.

"What now?" she whispered.

"Nothing. We cancel everything; we tell nothing; but most of all, we have to get Nirghaz out of that tank!"

He twisted the dial, increasing the oxygen flow to Nirghaz's broken body, and cut in the program of music and recorded voices that would lure him back from the sleep that lies on the edge of death.

\* \* \*

Music came softly into his ears, followed by voices that seemed to make sense but did not, quite. By the time he recognized that he was hearing an ordinary conversation, the key words omitted, he was well on his way back to consciousness.

There was sound, a crashing sound followed by the rush of water. None of this made a great deal of sense. What Husain could not know was that Dave had introduced a sedative into his bloodstream before awakening him.

There was a shifting perception of motion and harsh hands dragging him upward. There was a hard pressure under his spine and then light, blinding light. Dave's face swam

oddly above him. Then there was a pinprick in his arm. Somehow Nirghaz knew that all of this was not as it had been planned, but then darkness took him.

He was still dissociated and confused when he awoke. Slowly he unwound his memories up to the taping and smiled. He had done it! That his subsequent memories were not as he had been coached was of no consequence.

To live again as a man, a whole man!

He opened his eyes. The ceiling was white and he could see little else. He could not feel his new legs, a fact that displeased him. Ramadav had said that he would be too weak to sit up but he felt like trying. He heaved . . . and nothing happened.

It was as though he were still legless.

He jerked his head up. It was only a momentary glance but he could see the hollow in the sheet where his legs should have been.

"No!" His soul-deep cry of betrayal echoed through the building.

Dave rushed into the room, a soldier at his back. Nirghaz's eyes pleaded with him to say that it was not true but Dave could only shake his head. He took Nirghaz's hand—but Nirghaz turned his face away in despair.

Bhatt came running in and eyed Dave suspiciously, commanding, "Do what is necessary, but say nothing!"

Dave ignored him. "Nirghaz, I'm sorry. Bhatt terminated our experiment. Your grandfather was assassinated this morning. The government has resigned."

"If you say one more word, I'll have you thrown out," Bhatt hissed.

Dave responded with an obscenity, in English, but it was one that had found its way into many languages and Bhatt recognized it. He gestured and the soldier prodded Dave with his weapon. Dave shrugged and turned away but not before Nirghaz saw the tears that edged his eyes.

*Not betrayed, then, for Ramadav shares my pain. But to fall from such hopes! It is more than I can bear.*

Nirghaz looked up at the man who had brought him back to this hated body and cursed him with a fluency and fervor that made all previous criticisms seem like commendations. And Bhatt stood silent through it. There was no certainty that Husain might not be in power again soon—his importance to the Medinan negotiations was well known.

\* \* \*

Gulls wheeled overhead, exulting in their freedom and the brisk sea wind. Nirghaz watched them cut patterns against the blue sky. Great clouds were gathering westward out at sea, and soon it would be the season of the monsoon.

He slipped the lock on his wheelchair and wheeled it forward to the edge of the cliff. He had sent his nurse away; he would never have been permitted to take such a chance otherwise. Far below, the beach was deserted. That was good, for his purpose.

There were two packages wedged beneath his seat. He took out the top one, a recorder, and turned it on.

Bhatt was still holding Ramadav and Shashi, although he had not dared to detain Husain. Nirghaz had already made arrangements for their release.

A gull landed near him and he spoke harshly to frighten it away.

"I am making this record," he said into the microphone, "for the sake of my friends and for my own sake, should circumstances make it possible for Ramadav and Shashi to complete the work we set out to do together.

"That which I am about to do is in part an affirmation of faith in you, my friends. In the months that we have been together, I have come to have a great affection for you both.

"You have been loyal in trying times and I wish you the best in the coming confusion. I have made arrangements with some of those in power to make certain of your safety since I will be in no position to do so myself."

He turned off the machine and stared out to sea again. The salt smell was sharp in his nose and the sun felt good. All life was good. For a moment he hesitated, but his hopes had been raised too high for him to return to the old accommodations.

He dictated a brief summary of events following the moment he woke up from the aborted transmigration; then he paused once more.

"I know that if it is humanly possible to do so, Ramadav and

Shashi will continue the project and rescue me from my own folly. But even if they cannot, my decision remains unchanged. There are some horrors too great to face, and some disappointments too deep to endure."

This time he paused for a very long time, staring at the gulls that circled overhead. Then he said softly, "Shashi, I love you. And you, Ramadav. Be happier in one another's company than you have been of late."

He stared down at the beach, a cold emptiness growing inside him, before making a final entry: "Life, I love you. Too much to see you broken."

He motioned for his nurse and then sent him to carry the recorder back to the tram at the base of the hill. When he was well along the way, Nirghaz took out the second package and unwrapped it. He had made it up himself and knew its capabilities. There was a simple switch built into one end of the casing.

He looked up again at the gulls soaring free . . . and flipped the switch.

The explosion tore him apart and hurled his broken body to the beach below.

## X

**D**AVE PACED THE floor, occasionally slamming his fist against the wall. It had been their bedroom; now it was their prison.

Shashi sat with her face turned toward the wall, her hands folded protectively across her belly. Three days had passed without word of

the world beyond their cubicle. Three times daily they were fed; otherwise they were ignored.

It was afternoon when they finally came for Dave, offering no explanation. Two soldiers entered, ordered him out and slammed the door in Shashi's face, leaving her alone with her fear.

Bhatt waited for him in his office. The impassivity with which the man had masked himself was no longer present. Without preamble or pretense, he said, "Kantikar is dead. Now that you have no one to speak for you, don't you think it's about time that you explained the experiments you have been doing?"

"I have already told you more than you are authorized to know."

"You lied," Bhatt said, not angry but no longer patient. "There is little enough to be learned from your lab notes but enough to tell that your project was for the transference of the memories of Husain into a new body."

Bhatt had seemed so much the bumbling fool. Now Dave mentally castigated himself for his blindness. Fat, yes, and slow of speech and action, but the mind that hid behind those mild brown eyes was sharp and ruthless.

"What your notes don't tell," Bhatt went on, "are the codes, which are the key to the programs in the computer. Short of washing out whole banks of memory, we cannot make it serviceable again for its original purposes. You will give me the codes."

"No."

The skin beside Bhatt's eyes tightened. "Sri Singh, your project is ended. The government has need

of the computer you have been misappropriating. The codes, if you please."

"Bhatt, you had me fooled for a while but I no longer consider you an idiot." Bhatt did not turn a hair. At one time he would have flown into a tantrum at that remark. There was no longer any doubt that the masquerade was through. "You have no intention of erasing the programs in that computer. You want to protect them for the sake of yourself and your superiors."

"All right, so we do. What objections do you have to that? It is your project. Don't you want to see it carried to completion?"

Suddenly wary, Davie said nothing.

"What of Husain? Don't you want to give him back his legs and his genitalia?"

"Of course. But I don't trust you, not one little bit. I will insist on safeguards—starting with Shashi's and my immediate release from confinement—if we are to deal with one another."

Bhatt did not argue. Instead he drew a newstat from his desk drawer and tossed it to Dave. Puzzled, Dave opened it and read the headlines that gave the story of Kantikar's death.

"Bottom left," Bhatt said, and then Dave saw the headline that read HUSAIN COMMITS SUICIDE. He read the article through and dropped the stat on Bhatt's desk.

"How do I know that isn't a forgery?"

Bhatt removed a recorder from the same drawer and switched it on. Nirghaz's voice emerged, the mewling of gulls in the background.

When the tape had played through, Dave found that moisture had sprung to his eyes, and he fought the display of emotion.

"You heard him. He said that he had made arrangements for our safety."

Bhatt nodded. "Srinivas has been on my tail for two days, trying to get me to release the two of you. However, there have been these rumors circulating, rumors that you got the layout of Kantikar's motorcade route from Husain under the guise of taping him and passed it on to the assassin who finally got Kantikar."

Despite himself, Dave showed dismay and Bhatt chuckled. "Of course it may prove that these rumors have no foundation. It all depends on how well you cooperate."

Dave sighed. "What do you want?"

"That's better. Do you want to reconstruct Husain?"

"Of course."

"Can you do it?"

Dave hesitated, but there was no way out. "Yes."

"Good. You will go ahead as planned and we will monitor your actions, but first you will give us the information which your notes lacked."

\* \* \*

When Dave returned, safe, Shashi's first reaction was relief, but that passed as quickly as it had come when she saw the expression on his face. "What is it?"

"It's Nirghaz. He committed suicide."

"No!"

Dave collapsed into a chair and Shashi knelt beside him. "Karji died and after that he couldn't face the prospect of going on as a cripple. He left a recording, stating his reasons and saying that he was counting on us to reconstruct him."

Shashi's body quivered as though struck. "There's no way we can do that now."

"Yes, there is. I made an agreement with Bhatt to show him how the process works in exchange for the opportunity to resurrect Nirghaz."

"You didn't!"

"Why not? I had no reason to keep the process secret."

"But Nirghaz is dead."

"We have his tapes, Shashi, and his clone. Nothing has changed."

"Oh, but it has. His *atman* is gone now."

"Oh, hell!"

"If you resurrect him now, you'll only have a *zombie*. A walking corpse."

Dave leaped to his feet and began to pace the room, muttering curses under his breath. Shashi stiffened and drew back. He rounded on her, anger flushing his face.

"Dammit, Shashi, it isn't for you to say. If you prefer, it isn't for me to say either; but *Nirghaz* has the last word. He gave the order for his resurrection and I intend to perform it, with or without your help."

"Well, you won't have it."

Their eyes locked for a space of seconds before she turned away from him.

"Shashi!" The word was laid against her back like a lash. "Your commitment to principle may in-

deed be admirable but what about your commitment to your friends? Nirghaz went to his death depending on us. Do you know what he said in that recording? I can just about quote it since I thought they might be the last words I would ever hear him say. He said, 'What I am about to do is an affirmation of faith in my friends. I know that if it is humanly possible, Ramadav and Shashi will rescue me from my own folly.'"

Shashi winced at the words.

"What kind of principles are there that allow you to betray a trust like that?" Dave asked.

Shashi's shoulders sagged and she turned back to Dave with eyes that showed no more traces of love. "Tomorrow," she said, "I will help you make your *zombie*, and then I'm going to walk away from this whole sordid mess and try to forget that I ever met you."

After the recorder was snapped off, Bhatt inquired, "Did you get all that?"

"Yes," Bhargava's reply came over the phone. "I think we can be sure that the woman won't spread what she knows. She hates the whole idea of the resurrection project. If it is successful—and, frankly, I have my doubts—this Singh will be a security risk. Can I count on you to take steps?"

"It will be my pleasure, believe me. But why take chances with her and Husain?"

"A good point. Husain will be needed as an example of what the process can do—if it works."

Bhargava chuckled. "Actually the whole thing will probably prove impossible. We can keep an eye on the Mathur woman. If she poses a risk later, we will take steps then. But I want Singh out of the way as soon as he finishes with Husain."

## XI

**D**AVE PUT THE computer through its checks while Shashi examined the clone. Armed guards stood at the door and an Air Force scientist sat at his elbow.

Shashi came back to see him, her eyes unnaturally wide. Even her feelings toward Dave were set aside for the moment and he felt a touch of fear.

"Is there something wrong with the clone?"

She shook her head and he could see that her hands were trembling. "It has partial memory—we were up to age three when Bhatt interrupted us." She swallowed and went on, "It's alive in there, crying in the night and trying to get out."

Dave shivered at the thought.

\* \* \*

*Memories flowing in the dark—childhood fleeing before adolescence. The clone aged rapidly, each moment adding days to its store of experience. A clumsy young man alone in the dark with an equally clumsy but eager girl. A state banquet; Sri Karji acknowledging him to the world. His mother's harried face when the world refused to forget that she had married a hated Muslim and had borne a half-caste child. The girls who would and the*

*ones who wouldn't. Especially Renana.*

*Working secretly for Karji; the interminable negotiations with men who valued war over peace. The feel of a horse between his legs as he flashed across a polo field. The flooding warmth of sunshine and the relaxing coolness of the ocean.*

*Then Mahmet, the polo field, the secret negotiations and the planes tearing the sky. Pain! Amputation! Despair.*

Hours passed as the memories accumulated. Dave sent for a sleeping pad and he and Shashi slept in rotation, one of them always monitoring the clone. A hospital bed was secured in anticipation of the project's completion.

*He remembered Dave's briskness as he settled the helmet in place. He felt again the sensation of drowning and the gentle onset of sleep as the taping began.*

\* \* \*

Pain! Like he had never known before. A body so new that it had not yet learned to suppress excess stimuli, and one that had never known the killing pull of gravity. He almost passed out with the sheer intensity of it.

The bed beneath Nirghaz was a torture rack. He could feel his new limbs, but it was not good. Every muscle and joint cried out against the unaccustomed strain of merely living. Finally he felt the relief of the warm, deathlike narcotic spreading outward from the burning in his left forearm.

Six times Nirghaz awakened to such pain that he could not tolerate

it and six times either Dave or Shashi sent him back into the haven of sleep. On each occasion he was stronger . . . but even when lying still, his body felt stressed by gravity, and it responded healthily by building new defenses and blocking the pain.

The seventh time he awakened, Shashi was at his bedside and she sat thus for an hour, holding his hand, while he lay awake but too spent to talk.

Finally a natural sleep claimed him.

\* \* \*

"Your passes, please."

Srinivas handed the MP his identification and Bannerjee leaned across him to do the same. The corporal glanced briefly at the papers, returned them and passed the pair into the base.

As soon as the monopod was gone from sight, he ran to a phone and carried out his standing orders. Bhatt took the call and left hurriedly, telling his orderly to stall.

So Srinivas had cornered a member of Congress after all. That would certainly speed things up.

\* \* \*

Shashi was sleeping and Dave was sitting at Nirghaz's bedside when Bhatt entered the hangar with a contingent of armed MPs. Bhatt motioned and two soldiers quickly flanked Dave.

"Take him outside."

Dave pulled back. "Bhatt, quit making an ass of yourself."

"You can't do this," Shashi

shouted. "He hasn't done anything."

"Restrain the woman. I want a guard set over her, and over this one too." He motioned toward Nirghaz.

"Bhatt, you just lost yourself a career," Nirghaz promised.

Bhatt did not seem concerned. He turned and followed his men out.

Outside, Dave blinked at the brightness of the day. The soldiers who hustled him along were far from gentle and he struggled angrily against them.

Bhatt smiled. "Let him go." They did so.

"You two come here." The soldiers backed away from Dave, clearly puzzled.

Bhatt had stopped smiling. "Men, the prisoner is obviously trying to escape. Stop him."

Dave stood impassive for one heartbeat, shocked into immobility. The soldiers who had held him swung their rifles up. One of them was grinning.

"Bhatt, no! No!"

Flash, sound and impact, simultaneous. He felt the slugs rip into his body.

Shashi screamed and fell forward, clutching her swollen belly. Something had happened there. Some *thing* had come into her.

The sky was very blue. There were no clouds. But there was pain, pain, Pain, *Pain!*

SAMSARA

**S**HASHI AND NIRGHAZ produced the passports that identified them as



Mr. and Mrs. Jain, traveling with their son Lal. Then they picked up their baggage and sought a taxi. The streets of Casablanca were crowded with the noon-time rush. Nirghaz looked back constantly, but if they were being followed, he did not detect it.

They changed taxis twice, rode a bus, took another taxi and finally walked through the open-air bazaar in centertown to a certain café.

There they recognized James Brigham from the picture they had been provided. He rose to greet them, then seated Shashi and ordered refreshments. They talked of trivia for an hour, rose and departed in Brigham's monopod. Only when they were safely inside did they relax the masquerade and say what was on their minds.

"Sorry for the cloak-and-dagger stuff," Brigham said, "but we can't be too careful."

"Never mind," Shashi reassured him. "Paranoia is in thinking *they* are out to get you when they aren't. We both know they are, and we can only guess at how many varieties they come in."

"Two years of dodging the Indian Secret Police is enough to make anyone cautious," Nirghaz added.

"What do you know of the Project?" Brigham asked.

Nirghaz and Shashi exchanged glances. "We can guess," Nirghaz said, "but we actually know little."

"Nor do we want to know anything," Shashi added. "We only want you to know where we are and to know how to reach you in case of an emergency."

"Have it your own way, although

I will say that you can't expect much from us if that is going to be your attitude. You will keep lifetapes on file?"

"No," Shashi replied firmly.

"But you'll have to, or you'll . . ." Brigham broke off lamely, remembering the comments in Dave's letters about Shashi.

"No tapes," Shashi repeated, and if Nirghaz looked uncomfortable, Brigham did not know him well enough to notice.

"Then there is really no reason to go further, is there?"

"Only one," Shashi said and then hesitated before asking, "What about David Singer?"

"We have his tapes and very soon we will be able to resurrect him. A damned shame that we don't have a tissue sample, but any body is better than none."

Brigham smiled but the joke fell flat. Shashi bounced her son on her knee, a distant look on her face.

"Sri Brigham, I have one last debt to discharge. Can you get me a scalp and a sterile tissue-sample container?"

"Yes, of course. Why?"

"My son is David Singer's clonechild. His genetic twin. What is it your Bible says—an eye for an eye, a clone for a clone?"

Brigham smiled a smile he did not feel, recognizing Shashi's distress in the pitiful attempt at levity.

\*\*\*

*. . . then Dave adjusted the computer for an automatic recording run and settled the headpiece into place. He took up the syringe and pierced a vein, letting the relaxing*

*chemical flow into his system, and lay back . . .*

He was drowning in warm, wet darkness. Then there was noise and a rushing of waters, and light, and pain.

The bed beneath his back was a torture rack and his disorientation was complete. He was not in the hangar lab . . . where was he? He tried to sit up and found he could not. Desperately he tried to understand it all.

And then he knew—or thought he did—and he raised his arm. Thin; flaccid-white. He let the arm fall.

All the nightmarish questions returned to him then. *Am I really me?* Of course he was himself. How could it be otherwise?

\* \* \*

Weeks passed.

Dave remembered nothing of Kantikar's assassination, Nirghaz's suicide or his own death. All of those events had taken place after his last taping session and were irretrievably lost to him. Jim Brigham stayed with him constantly throughout the trying first weeks, along with Anson and Angellena Piaget. They were strangers to him, recruited by Brigham to man the secret resurrection project in the Atlas Mountains, but they were human and they lent him their humanity in the crucial first days of his recovery.

He had lost two years but he had gained an immeasurably long lifetime. Jim assured him that every conceivable step had been taken to ensure the security of the Project.

He learned that Shashi and Nir-

ghaz were nearby but unconnected with the Project; that they were lovers of two years' standing; that they were raising his son, whom Shashi had named Ram Singh . . . and that they would not see him.

None of it made any sense to him.

\* \* \*

He was sitting in his room, spent from exercise but too restless to sleep, when she came. Anson had given warning that she was there and he had prepared himself as best he could.

He had known jealousy in the first few weeks but that had passed: His affection for Nirghaz was too great. And besides, he had lost Shashi some time before his death. He remembered that directly, and what he had learned about the period that spanned his last taping session and his death only confirmed his suspicions that their relationship had worsened toward the end.

Nirghaz had not taken Shashi from him; he, himself, had lost her.

She was as lovely as he remembered her, but something had taken away her smile. There were lines at the corners of her eyes that had not been there before.

"Hello, Shashi."

"Hello."

"I've missed you. You should have come sooner."

She moistened her lips, looking trapped. He wondered if she were embarrassed by her liaison with Nirghaz and hoped that that was all that stood between them. It was not.

"I only came to discharge one last debt."

Her tone surprised him. "Shashi, nothing that I remember and nothing that anyone has told me has ever led me to believe that you had come to hate me."

"I don't hate you."

"You seem to."

"I just don't know who you are."

"I am David Singer. Or Ram David Singh, if you prefer that name."

"No, you are not."

"Hell, Shashi, are you going to start that again?"

She silenced him by turning away. He bit back any further angry comments and said, "Sorry."

"Did anyone tell you what happened to me when Ram David died?"

"No. What happened when I died?"

"When Ram David died, his *atman* entered the child in my womb."

"Nonsense."

She turned on him angrily. "Nonsense? How would you know? I was there; I felt it. I *know*!"

"And I am here. I am myself, fully; I know it."

She almost smiled then, but her tears ruined it. Softly she said, "Well, at least you sound like him . . . but you are not him. That which was Ram David Singh transmigrated to my child. That's why I named him Ram Singh, not out of sentiment. That which was the essence of the man I loved now resides in Ram Singh, ready and willing to experience life again, fresh and untainted. No mere rerun of old

experiences, old mistakes. That's why I am staying away from the Project—that and my repugnance at the whole thing. I intend to see that Ram Singh will have a chance at a new life."

"And me? Who, then am I?"

"I don't know."

"I do. I am David Singer—and you are out of your mind."

"So you think."

"So I know!"

She was silent then, without having conceded anything.

"If what you say is true, why have you come to me? What am I to you?" he asked suddenly.

She looked at him long and sadly. "You are a phantom out of my past. You are a walking dead man. You are an abomination. And yet . . . I hunger at the sight of your face."

"I still love you."

"Stop that!"

"I do."

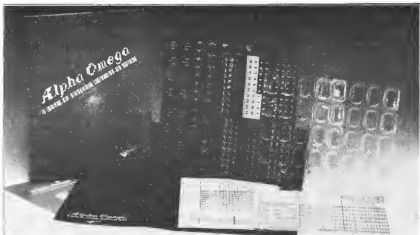
Tears were flowing freely down her face but she remained adamant.

"Shashi, what did you come here for?"

"To ask you, in memory of the man who once wore that sweet body, in the name of the man you think yourself to be, to leave me and mine utterly alone. To never seek me out. To never contact my son. Not to haunt me like the ghost that you are."

He examined the lap robe for a time and then raised his eyes to meet hers. "If I do this thing you ask, Shashi, it is only because I still love you."

She was sobbing softly when she left the room without once looking back. ★



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## Mike Ravine

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COLONEL BRAUN stood before Spacefleet General Eastland's desk, trying to get the general's attention. Eastland, eyes glazed, stared off in an apparently random direction.

*The senile old fool, Braun thought. With this kind of leadership, it's no wonder we can't defeat Sir Alec's Spaceforce.* "Sir?" he asked, for the third time.

Eastland's eyes wandered over to Braun. "Ah yes, colonel. What is it?"

"Sir, I've come up with a plan which should delay the Empire's imminent offensive. Long enough, sir, for us to complete the deployment of our nova inducers."

The general seized onto that thought. "Yes, the Empire must be stopped. The conquests of that madman must be brought to an end!" His eyes narrowed, and his voice lowered. "He *is* mad, you know, colonel. Thinks he's the reincarnation of a 20th century British actor. He—"

"Sir? About the plan?"

Eastland stared blankly for a moment, then nodded. "Continue."

"Since Sir Alec is a Zen-Baptist, it is forbidden for him to use com-



**May the  
Farce be  
with you,  
always. .**

puters or magnetic data storage. When he came to power, he had all the information in his empire transcribed into bound volumes. These volumes were placed in a planet he had hollowed out and made into a library."

"I fail to see what this has to do with delaying the offensive," Eastland said.

"I'm getting to that, sir. Our latest intelligence reveals something that Sir Alec managed to keep secret for many years. The assassination attempt made against him by the Sirian underground left him blind. He retained control of his empire, but he is plagued by feelings of great inadequacy. By way of compensation, he did things to handicap those around him. He decreed that each volume in his library-planet was to be replaced by an audio disk containing the same information.

"My plan is this, sir: Intelligence has determined the exact coordinates of the section of the planet where the battle plans are stored. I will pilot a one-man ship through hyperspace to those coordinates. Thus I avoid the planet's defensive

forces. Dropping out of hyperspace, I'll scan the disks containing the battle plans. Jumping back into hyperspace, I'll escape cleanly. The piloting will be very tricky, but I believe that an experienced pilot, such as myself, has a chance at pulling it off."

Braun assumed, simply because the general was looking in his direction, that he had his attention. Eastland's eyes, however, were glazed, and his mind, far away.

"With their plans in our hands," Braun said, "They will have to abort their offensive. This would buy us the time we need to insure our victory." Very pleased with himself, he looked expectantly at the general. Eastland continued to stare. After a considerable pause, Braun asked, "Sir?"

Eastland jerked his head slightly, and focused his eyes on Braun. *What had the man been saying, he wondered. Something about coming out of hyperspace inside a planet? "Just what do you hope to accomplish by this stunt, colonel?"*

"This stunt, sir, should get me into the Guinness World of book records."



science  
fact:

# A Step Farther Out

Jerry Pournelle, PhD

## THE TOOLS OF THE TRADE

**T**HIS WILL BE my fourth annual report on the State of the Sciences—that is, I've just attended the annual meeting of the AAAS, and it's time to review what's going on.

There's a lot. Before this is over you'll hear of the proof of immortality, see projections of history out farther than anyone I know of has ever looked, get the latest on the search for extra-terrestrial intelligence (SETI), and learn what's coming next in climate (warmer for a hundred years, Ice Age expected in a thousand). But first the *real news*.

The theme of the AAAS meeting this year was "the tools of science," although there wasn't really very much more emphasis on such things than there has been in the past. What made it peculiarly appropriate is rather personal to me—I'm writing this on my own computer. And I love it. The only

thing that bugs me is that after I get this all nicely composed on my monitor screen, it will be typed and shipped off to Mr. Pierce, who will mark it up and hand it to someone to type into another computer; one would think that I could send a tape or disk, bypassing all that (and incidentally giving the author final control over the text; hmmm; perhaps I have discovered why editors are not overjoyed by the new systems).

In any event, my Z-80 system works, and even gives me a running count of the words, making it no end easier for all concerned. (Incidentally, although authors traditionally complain about copy editing—an obscene act performed by one consenting adult and one non-consenting author—I really have had no grounds for unhappiness at GALAXY's hands, either with Jim Baen or John Pierce.

I am tempted to do my entire

column about my computer system. I type onto a TV screen, edit by moving words and lines and blocks of type around electronically, and when I've done I go have coffee while the machine types the manuscript. Incredible. Even more incredible is that my computer, mine, the one sitting here in this room, is more powerful than was the world's best system back when I started in the aerospace business. But enough; let's get on with the column.

\* \* \*

Science marches on. There wasn't anything really spectacular in this year's meeting; just a confirmation of trends that we've seen before. There weren't any wild disappointments, either, except for the announcement that one of the shuttles would never go to space. Those fans who worked to get the first ship's name changed to "Enterprise" have legitimate grounds for complaint: that's the one the Administration has chosen to cancel. *Enterprise* will never go to space, and I for one can't help thinking there's a kind of grim vengeance in that.

It was mildly amusing to listen to Mr. Carter's spokesman explain why killing one of the shuttles would be good for science. Of course one had to hang onto one's sense of humor. A few of those listening couldn't, and asked just how it might help the sciences to kill off some 25 percent of our capability for going to space. I heard no very satisfactory answer to that. The theory is that the money saved will

be available to other science projects, but none of the lucky recipients was named, and you can believe as much of the theory as you want.

Enough gloom. I really don't want to write a political column.

SETI. Surely the search for others out there is worth a note. No alien intelligence has been found, of course, although enthusiasts continue to listen. Their efforts have been hampered by the limits of their receivers: there are just a lot of possible channels on which the others might be talking, and we don't have much spare radio-telescope time anyway. Thus it would make sense to listen to a very large number of channels all at once. The only problem is that no one has ever built a one-million channel receiver.

The "how to" of such a receiver has been known for years. It wouldn't even be expensive, at least not by Federal standards—under five million dollars, probably under half that. So why has it never been done?

Because no one ever asked for the money. NASA's budget people are terrified that if they ask for a couple of megabucks for a receiver with which to listen for alien intelligence, Senator Proxmire will (a) refuse the request, (b) denounce NASA and perhaps hand them his "Golden Fleece Award," and (c) wreak terrible vengeance by chopping out several tens of millions from the NASA request.

Although this is hardly a courageous stand on NASA's part, it is, alas, rather realistic. This year, though, it is said that NASA will screw up its courage and ask



for the million-channel receiver for listening to possible messages from Out There. Watch for Proxmire's reactions.

\* \* \*

There was a lot of attention to the weather at this year's AAAS meeting. I don't suppose that comes as much of a surprise, given the terrible weather we've had lately. I wish I had good news, but in fact, the consensus of opinion among the weather and climate people is that things are likely to get worse, not better.

According to the long-range weather prediction people, what we've experienced the last couple of years is "normal;" what was abnormal, and we have no right to expect for the future, is the extraordinarily *good* weather of the past two to three years.

Now things are getting back to normal, and if that turns out not to be our liking, well, the universe never promised us anything different. The normal climate generates highly variable weather. For reasons not clearly understood, during the 50's and 60's the weather wasn't very variable, and the climate was highly benign. For the future, if you don't like the weather, wait a few decades. It will probably change.

That turns out to have a number of consequences, of course. For the moment famine is at a minimum; there are comparatively few areas of the world in which starvation is a major contributor to the death rate. Given drastic changes in climate—and we now have good reason to expect such massive changes—there

will be nothing for it: either we increase productivity, or famine stalks the land again. Not, of course, *our* land. *We* won't starve; but the universe has so arranged things that if there are to be major gains in agricultural productivity, they will almost certainly come about through intensive use of western technology transplanted to the 'developing nations'—or they will not come about at all. Whether we will do the necessary development is another question.

\* \* \*

Last year I reported that physicists were challenging the General Theory of Relativity. I may not have put it precisely that way; what I said was that top physicists were fairly sure that within the century they would have unified field theory. *That*, however, implies the overthrow of General Relativity, because GR treats gravity as a phenomenon fundamentally different from the 'forces' of nature such as electro-magnetism. In General Relativity, gravity results from distortions in the fabric of space itself; it is not really a 'force' at all.

Incidentally, Einstein himself searched for a unified field theory, something to relate gravity to the other forces, and although he invented GR, he didn't believe in it.

At any event, the trend is toward unification of the fundamental forces, as shown in Figure One.

There are also continued attempts to describe the universe in simple terms—that is, what with all the elementary particles floating around, theory has become very complex,

Figure One: A Unified Field Model of the Universe.

[Newton]

Celestial Gravity

Terrestrial Gravity

[Maxwell]

Electricity .....	}	Super-gravity?
Magnetism .....		
Weak Nuclear .....		
Strong Nuclear .....		

Figure Two: QUARKS

Quark	Binding Particle
Up	Electron
DOWN	Electron Neutrino
STRANGE	Muon
CHARMED	Muon Neutrino
TOP★ (Truth)	Tau
BOTTOM★ (Beauty)	Tau Neutrino

★Evidence for existence is not conclusive.

and physicists are trying to get rid of some of the particles by showing they are made up of something else, as shown in Figure Two. Like it or not, the name given the "something else" now seems to be "Quark," and the terms "Up, Down, Strange, and Charmed" also seem destined

to stay; however, some physicists such as D. Allan Bromley of Yale are resisting "Truth and Beauty" as the names of the newest candidate quarks.

The impulse toward unification theories of the universe is a very old one, of course, beginning with

the Greeks and their early "atomic" models. Aldous Huxley once remarked that it made no difference whether the universe "really" conformed to the simplest explanation, or scientists were just not capable of understanding anything else; and possibly there is an impulse to simplicity rooted in the human psyche. Occam's razor need not have anything to do with the real world. Yet—there are intriguing hints that the universe may after all be built more simply than it appears.

For instance, there is that intriguing number  $10^{40}$  which appears so often. The age of the universe, calculated in units of the time required for light to cross an atomic nucleus; the diameter of the universe in units of nuclear diameters; the ratio of the strongest (strong nuclear) to the weakest (gravity) known force. There is also the mass of the universe as measured in masses of elementary particles; that turns out to be  $10^{40}$  squared, no small number, but there is that pesky  $10^{40}$  again.

And of course it may be pure coincidence. "What does it all mean, Mr. Natural?"

\* \* \*

Let's see. What else? You must remember, a AAAS meeting is a five-ring circus, and every day there is far more to do and see than you can possibly get to. This year it was a bit easier, because there were more of 'us;' in addition to Larry Niven and myself and Mrs. Pournelle, there were from the SF community Mr. and Mrs. Frank Herbert, Joe and

Gay Haldeman, David Gerrold, Charles Sheffield, Karl Pflöck, Ben and Barbara Bova, and probably some others I don't remember; this made it a bit easier to trade notes on various sessions, although it also made for longer nights. Incidentally, we found a very good Afghanistani restaurant near the Sheraton Park, where we enjoyed good food while Frank and Bev Herbert regaled us with stories of their visit to the Khyber Pass.

There was also a science fiction writers' panel; it was well attended and seemed to be enjoyed by those whose who came. Panelists Bova, Gerrold, and Herbert spoke of matters science fiction, probably appropriate for the audience. For myself I would have preferred that they *do* SF rather than talk about it, but I was probably alone in that wish.

\* \* \*

The single most fascinating session of the AAAS meeting was a panel entitled "*Prospects for Life in the universe: the ultimate limits to growth.*" Chaired by William Gale of the Bell Telephone Labs, it featured former astronaut Brian O'Leary, Freeman Dyson, Dr. Gale himself, Gregg Edwards of NSF, and Carl Sagan as discussant. Since neither Dyson nor Sagan can read the telephone book aloud without making it interesting, that was obviously the one panel not to miss, and none of us did. It began prosaically enough, with von Puttkamer of NASA projecting space industrialization over the next 25 years; it ended with the darndest thing I've ever seen. Understand—in a sense,

these were amateurs at my business, and in fact a great deal of the panel was a bit like that, scientists playing science fiction writer with no more spectacular success than most SF writers; that is, until Freeman Dyson gave his paper.

Before Dyson we had O'Leary on asteroid mining and space colonization, themes we've dealt with in this column and elsewhere. Not surprisingly, O'Leary recommends use of the O'Neill "mass driver" (O'Leary is O'Neill's associate at Princeton) to move asteroids around. The mass driver is that gizmo so beloved by science fiction writers, a kind of electronic catapult to fling ships—or buckets of goo—into space. Drivers don't work from Earth, but they will from the Moon, and certainly from an asteroid.

The usual SF story uses the driver to launch ships; Mr. Heinlein used one to launch capsules in *The Moon Is A Harsh Mistress*, and a few stories have had the drivers launching raw materials from the lunar surface. The latter is the concept O'Neill's plan for space colonies employs. O'Leary's presentation proposed using the driver to move an asteroid: power the driver with solar cells, and use chunks of the asteroid as reaction mass. I've often spoken of the concept in my lectures, but whether I heard it first from O'Neill's people I don't know. Certainly it would work.

It takes, according to O'Leary's figures, about 4,000 tons of equipment to haul in an asteroid. And one asteroid brought to high Earth orbit could provide all the materials needed to build enough Solar Power Satellites to power the entire world

by the year 2000. As O'Leary was speaking I made the note "Hell, it's my lecture;" which may not strictly be true, but it's close enough. We certainly could, by the year 2000, power the world from space, and we could do it without bankrupting ourselves—I've said all this before in other columns, and although the temptation is severe I'll leave the topic alone here.

The next lecture was by Dr. Gale of Bell Labs, and once again it was a bit like listening to my own presentation—not that Dr. Gale didn't say some things I don't, but the theme was remarkably similar to my "Survival With Style," at least at first. He began by reviewing the limits to growth on Earth itself; they are, not surprisingly, pretty severe, although not as severe as the Zero-Growth people like to postulate.

The solar system, however, provides somewhat more room. It could furnish for each of a sextillion (that's  $10^{21}$ ) people: 200 tons of hydrogen; five tons of iron; five tons of glass; 400 pounds of oxygen; 400 pounds of carbon; and 50,000 kilo Watt-hours of energy. Perhaps that's life on the cheap, and we wouldn't want the full sextillion people living here, so adjust the available wealth according to the population you like.

Dr. Gale then reviewed starship systems, none going faster than light, and not surprisingly concluded that they are quite feasible if a bit expensive. Again, so far, not a lot new; but he also pointed out that given the limits of a solar system, the impulse to build starships must be reasonably high. We could go

make use of other stars.

There's only one problem with that—someone else may want the materials. In fact, if you play exponential growth games, it will be only a few thousand years before humanity will have spread far throughout the Galaxy, and may well be tearing stars apart and moving big things around—see my column "That Buck Rogers Stuff" for more details—and if we are pretty near that stage, why haven't others done it? Those are effects we would probably see.

Thus, perhaps we are alone in this galaxy—and according to Dr. Gale, that may be as well, because in far fewer than a million years we will want it *all* for ourselves. Meanwhile it's a race—and he does not discount the possibility of a race to another galaxy so that we can lay claim before someone else does. And do note: if you project human progress and use that as a model, it is strange that the 'outsiders' are not here yet. (Devotees of the UFO persuasion have their own ideas on that.)

In fact, Gale notes, there is no reason why within a few tens of thousands of years humanity will not be interfering with the evolution of the universe: preventing lovely and useful matter and energy from collapsing into Black Holes where we can't get at it; making stars grow in the direction we want and need; etc. There is, Gale concludes, no limit to growth except to meet someone else as powerful as we who needs the growth materials we must have. On that note he ended.

But—of course there is a limit. The universe itself is not eternal. It

can't last forever.

It can't—but perhaps we can, says Freeman Dyson.

No one could ever accuse Dyson of thinking small. His "Dyson Spheres" or "Dyson Shells," large systems for trapping the energy of the sun so that not so much is wasted, were the inspiration for Larry Niven's *Ringworld* and Shaw's *Orbitsville* and a number of other stories. Although I didn't get the concept from him, Dyson was the first non-sf type I know of who examined the space industrialization possibilities implied by the laser-launching system I've employed in many stories. He is a modern renaissance man who thinks both broadly and deeply.

He began simply enough, by quoting from Stephen Weinberg's *The First Three Minutes*. Like many modern cosmologists, Weinberg finds that the universe is doomed, and that disturbs him. He says "The more the universe seems comprehensible, the more it seems pointless."

Of course nearly all religions have taught that "the world" (which certainly implies 'universe') will inevitably come to an end. The Last Trump will sound either from Heimdall's horn or Gabriel's. Then too, true atheist humanism has never had any answer to the feeling that it is all pointless; of course it is. (This is, incidentally, discussed brilliantly and at length in Henri de Lubac, S.J., *The Drama of Atheist Humanism*, Meridian 1963.) It is only a true modern who can proclaim that the universe has no purpose (in the sense that it is no more than a dance of the atoms) and at

Figure Three: The Universe According to Freeman Dyson.

CLOSED UNIVERSE:	YEARS:
All over:	$10^{11}$
OPEN UNIVERSE:	
Stars cool:	$10^{11}$
Galactic Cores form black holes:	$10^{21}$
Planetary orbits decay by tide and gravitational drag; no more planets:	$10^{30}$
All matter is liquid:	$10^{50}$
Galactic Black Holes evaporate by the Hawking quantum process:	$10^{100}$
All matter decays to iron:	$10^{1300}$
Cold Iron Stars collapse to neutron stars:	$10^{1076}$

Dyson: "This chart makes a very large number of assumptions about the stability of the laws of physics. . . ."

the same time bewail its pointless impermanence.

Dyson, however, did not address the theology of the universe; he stayed strictly within its physics, looking at the probable futures. The first result of this is given in Figure Three.

Now note that last number:  $10^{1076}$ . To the best of my recollection—and that of all the others in attendance at the panel—no one has *ever* tried to project the future *that* far before; but then, one learns to expect great things from Freeman Dyson.

He was not finished, though.

Granted that  $10^{1076}$  is a large number, still, it is finite; the universe does eventually come to an end. However—do we have to?

Now that sounds like a silly question. How can we survive the end of the universe?

First a question: is the basis of consciousness matter or structure? That is equivalent to asking whether sentient black clouds or sentient computers are possible: can we, in other words, make a one-for-one transformation of a conscious being, replacing part for part, and still have a conscious entity? And will it be the same entity?

Note that this is also equivalent to asking whether you could send a conscious being by wire—tear down the original and transmit a message that would cause an exact reconstruction at the other end.

If this is possible, then the second question: are biological entities subject to scaling? One presumes that if the basis of consciousness is structure, not the physical matter, then indeed we are subject to scaling: that we could build a one-for-one transform of ourselves, into computers, or into biological processes, that could be so scaled that the subjective life time is infinite.

Dyson then proceeded to demonstrate this with what I call the "Integrals of Immortality." I haven't room to reproduce them here, and I suspect that even freshman calculus would turn off my readers, but indeed they exist, and given the assumptions Dyson has indeed "proved" the possibility of an infinite conscious lifetime—which is to say that for all time a properly constructed entity could accumulate new experiences and fresh information, running out of neither experiences nor time in which to enjoy them.

Couple that with the Goedel theorem of mathematics which states that there is no limit to growth: there will always be new questions which cannot be answered without new assumptions, which will themselves generate new questions which cannot be answered in *that* system: and you have something to think about.

Quite an exciting panel. As I said when it was over, I had gone to the panel expecting something interest-

ing, but after all these were more or less amateurs at my business (far out speculation about the future); I certainly wasn't prepared for immortality and  $10^{10^{76}}$  years!

Carl Sagan's discussion was on aliens: any moderate extrapolation of human capabilities shows that within a thousand years we are likely to be visiting other stars—either physically, or certainly with messages. Thus Fermi's question: Where Are The Others? They should have been here by now.

Sagan examined several possibilities.

First, perhaps we are very early. This Sagan rejects—our sun is not very old compared to the age of the galaxy, and almost certainly there have been others. (Assuming that there are ever going to *be* others. Continuing along that line takes us to theology, and is outside the scope of this column; for our purposes we assume that life can come about given the right physical conditions, and that having come about it evolves. This is not, so far as I know, at all inconsistent with religion, or at least with the Catholic religion.

Secondly, then, perhaps high-level of capability they destroy themselves. We can certainly come up with scenarios in which that happens to *us*, and it's something to think about.

Third, perhaps advances in biology bring about immortality, and that in turn changes motivations, specifically, that immortality removes the imperative for colonization and expansion. I find this unlikely; I would think that for immortals would still have an imperative

for exploration at the very least; I find Larry Niven's ancient Louis Wu quite believable.

Fourth, there is the "zoo" hypothesis; we are either on exhibition, or somehow subject to non-interference regulations. Obviously this is not a new idea for science fiction readers; what's interesting is that it could be presented to a bunch of scientists without getting a laugh.

Finally, Sagan speculates, perhaps technologies not much beyond ours are so much *more* advanced that we simply cannot imagine them: the effects of really advanced technologies are not recognized by us. If so, we have an interesting future in store—because no question about it, we are already approaching the point at which we could make others unambiguously aware of our existence.

Sagan was followed by a chap from the State Department, who said among other things that we are now learning to look far into the future, and this is "particularly due to the work of people like Carl Sagan." Now I have nothing but admiration for Sagan, and I shouldn't like to take anything from his reputation; but I think he would be among the first to say that much of his speculation is a bit old hat to science fiction writers and fans; and my feeling as I listened to the State Department chap was "They're doing it to us again!" In fact, after listening to the scientists congratulate themselves over having, finally, allowed at one of their meetings some elementary speculations of the kind that have gone on in SF convention panels for decades, I very nearly titled this col-

umn "Out In The Cold Again;" however that would be uncharitable, and I am truly grateful for the opportunity to have heard Dyson.

It isn't as if it were unknown for SF people to steal from the scientists; now we get a dose of our medicine.

It doesn't taste very good, but what the hell.

\* \* \*

As usual I'm running out of space before I can cover even half of what went on at the meeting; but I can't end without mentioning the dinosaurs.

Warm-blooded dinosaurs. I didn't get to the panel, but I did attend the press conference. There's something mind-boggling about the whole thing: how to understand, from a few scraps of bone and fossil, the physiology of critters that died away 60 million years ago.

They were, after all, rather successful: dinosaurs, ranging in size from about that of a modern wild turkey to beasts massing 80 tons live weight, dominated the planet for nearly 100 million years. Most of them were *big*. According to the panel chaired by Dr. Everett Olson of UCLA, more than 50 percent of the dinosaurs were larger than all but two percent of the mammals; 70 to 80 percent of the mammals alive today are smaller than the smallest dinosaur.

As Olson said this, something occurred to me: if they were so large, their major problem would be getting *rid* of heat. They are on the wrong side of the surface to volume relationship, just as an overweight



person finds it very difficult to lose a few pounds. (There ain't no justice; it's easy for a thin person to reduce.) I mentioned that in the question period and found that this seems to be a relatively new idea—not that I thought of it first, but that the biologists concerned with the dinosaurs have only in the last couple of years looked at the beasts from that point of view.

However—Walt Disney did present the “overheat” model of dinosaur extinction in “Fantasia,” as Olson pointed out to me; and looking at the long-term climate models, there's at least a chance that this is what happened to them. They cooked in their own juices.

It's all complicated because we are not even sure where the continents were when the dinosaurs flourished; it has been that long, and they were around for a very long time. If you rearrange the land masses to the best guesses of the configuration back 100 million years ago, nearly all the dinosaurs lived within 40 to 50 degrees of the equator—except that there is reported a fossil print from Spitzbergen and no one is sure that Spitzbergen was that far south even back then.

There was no real conclusion, and my apologies for taking your time with the question. It interests me, even if the best I can say about warm-blooded dinosaurs is that “nobody thinks they all were ‘warm-blooded’ but many respectable paleobiologists think *some* were; a few think none were.” As to what killed them all off, there aren't any fewer theories now than there were a few years ago.

And at least some theorists say that the warm-blooded dinosaurs became birds, and the cold-blooded ones died or became reptiles, and what's all the problem?

\* \* \*

The final controversy was over sociobiology, and that's important enough to warrant a full column one day. At the AAAS meeting the usual group calling itself the “Committee Against Racism” showed up to enforce its idea of scientific integrity by preventing Dr. Wilson from speaking; their brilliant idea was to shout “Wilson, you're all wet!” and pour water on him, obviously refuting his ideas. Sigh.

But for all that, it was a quiet meeting, not like the one a few years ago when the “concerned” whatever they were hit Senator—then Vice President—Hubert Humphrey right smack in the mush with a ripe tomato, or the one in San Francisco at which the Racism Committee tried to quiet Sydney Hook.

I usually like to summarize the year in science, but this year it is difficult. The mood was one of optimism for the technological and scientific advances of the year, and profound gloom because of the prevailing attitude of government.

We *can* do a lot. Every year the discoveries come forth, and the promise of the future gets brighter; but for the moment at least there's the question of whether we will *do* anything about bringing forth that promise.

We have the tools. We may not have the will. ★

**Greg Benford**



**THE STARS IN SHROUD**

Ling Sanjen has followed a career as an officer in Fleet, the military arm of the vast interstellar Empire man has forged by faster-than-light ships (Jump ships) and the slower ramscoop vessels. Ling is an ofskaipan—a despised outsider in the predominantly Mongol culture, a synthesis of Chinese, Japanese and southeast Asian societies. This is all that remains of the human race; the other nations of Old Earth were wiped out in the Riot War.

Ling is one of the first Fleet officers to come into contact with a strange new disorder, the Plague. It is a crushing fear of open spaces and light, apparently brought on by an alien species, the Quarn. A full-scale war develops between Fleet and the Quarn, but so little is known of the enemy that Fleet is virtually powerless. No Quarn native worlds are known. Ling makes the first raid to bring back survivors of a Quarn "attack" on the planet Regeln. On Regeln Ling finds people crowded into foul passageways and self-made piles of mud and stone, erected to shield out the enormity of open space. The survivors are gibbering, mindless cases.

Ling's men evacuate some survivors. Returning to Earth, the crew itself begins to develop Plague-like symptoms. The clearest sign of this is the failure of the Sabal Game, an elaborate public ritual the Empire has made a virtual state religion. The Game reinforces social solidarity and feelings of group cooperation. To Ling, Sabal is an important emotional factor in his life, the underpinning to his ability to lead. He

leads his ship's Sabal Game on the flight Earthward and the Game dissolves into strife and self-seeking among the players—exactly the opposite of what the Game should achieve.

Ling sees now that the Game is the key to the Quarn assault on man. The mysterious Plague spreads through the Game, using man's psychological weaknesses against him. Ling decides to not bring the survivors to Earth. Ling's executive officer, Tonji, brushes aside these ideas. He invokes a Fleet rule against Ling and brings the ship to Earth. Ling is court martialed for delaying the return of the survivors, which Fleet wanted to examine. An ofskaipan, he is quickly convicted. Only Ling sees that these survivors will spread the illness on Earth, but he is ignored. By this time the disease has affected him, too, and then his family.

For a long year he lives in despair with his wife, Angela, and his children Chark and Romana. They live in the Slots, cramped buildings housing the ill. But gradually Ling recovers, for unknown reasons. He ventures out of the Slots and is picked up by a Fleet guard. Fleet is interested in recovery cases and after studying him, they offer him his old rank. Tonji himself offers a post on the planet Veden, a key interstellar ramscoop freight terminal. Barely suppressing his hatred of Tonji, Ling accepts. Angela protests his leaving Earth but Ling goes anyway, drawn by the urge to act.

Tonji's offer was a barbed one. Veden is in a double-star system. There is a hot blue star, Lekki, and circling it a neutron star, Jagen.

*The precious Jump ships are no longer used to drop passengers safely near Veden; instead, Ling must loop near Jagen, losing energy through a gravitational slingshot effect, to reach Veden. He survives—barely—and resolves to settle the score someday with Tonji.*

### PART III

#### 1

I FELL TOWARD Veden, toward rebirth. It might be possible, a new beginning. My fuel was spent. If the pickup shuttle failed to reach me, I would take a long, smooth ellipse down into her. Flame like a coal, fall a cinder. A sacrifice to her regal orbit, marred only by an animal cry of despair at frequencies to which she never listened.

Who did she hear spinning with ancient purpose? To Lekki, Star of India? Or to the dark mote that raced with frantic energy, the Neutron Being?

Gods and planets do not speak. She would not say.

"Have you on visual," my suit spoke to me. "If you can drop a little lower, I'll match on my present trajectory."

I thumbed on my binocs, but without a referent I couldn't pick out the shuttle. I stretched my arms and legs as far as the cylinder allowed—it was conveniently casket-sized—and unlocked the jet plates. A slight nudge forward. A tug of acceleration at my back. The shuttle came sliding up from the white rim of Veden as though on an invisible wire, sure and swift and impersonal, a black spot against the

-muted whites and blues. Veden swept closer, serene as though in meditation, soundless.

"Your course is bracketed," the shuttle pilot's voice came through thinly in the crackle and hiss of my suit radio. "Secure attitude control board."

I never tire of the stately maneuvering of craft in orbit. They move as though some unheard rhythm times them, unperturbed and answerable to no one. The shuttle drifting toward me gave the perfect illusion of freedom. But it was doomed to fall into the sea of air below us and regain its mortality, be weathered and aged even as men are.

The shuttle jetted gas, blurring the crisp outlines of Veden below it like heat waves on a warm afternoon. Heavy shielding around the common pod identified it as an atmospheric craft. Delicate spines of antennas would be retracted before the atmosphere could sear them away at reentry.

A black rectangle grew in its side. I coasted straight into it. Inside harsh violet lights winked on and I could see the braking pads standing out from the walls of the pickup port.

Why violet? I blinked. The afterimage faded very slowly. My polarizers had compensated almost immediately, but the instant of lag had been enough to blind me in one spot of my vision field for more than a minute.

I watched the port grow, using my peripheral vision. The shuttle was outfitted for a variety of tasks. Grapples tucked under the belly, waldo arms recessed beneath the pilot's

slot, and a long thin cut ran down its side—from there would come the thin delta wings for skipping along the top of the atmosphere.

"I'm coming in nicely," I said. The violet rectangle grew, filled the port. We hit the pads gently. I heard a faint clank as something wrapped around the outside.

"Contacts register correctly," the pilot said. "Are you familiar with the mechanism for securing—?"

"I'll mention it if I have any trouble," I said. "But why the colored light? It's rather difficult to see in here." I popped the release on the capsule hatch and the violet came flooding in. It would have been unbearable without polarizers. I pushed off gently with my elbows, drifted out of the capsule and up to the ceiling.

"Oh, I'm sorry, sir. I've got the illumination set for Veden surface levels. Switching over to Earth standard."

The violet phosphors died and white ones flared into brilliance above them. Everything was silent, except for the small *pings* of my suit contracting as I moved. Gently, gently. I remembered my deep space work of decades past and kept my knees bent, moving slowly and thinking through every action.

The elastic cables fitted into slots near the capsule. I reeled them out and used a suit jet to swing around the capsule in a circle, the line trailing after me. The third cable grip refused to close for a moment when I tried to lock it and I was afraid it had cold-welded in the open position, but after some tapping, it shut. The lines restrained any motion of the capsule perpendicular to its axis

and two axial rods kept it from sliding out of the cocoon of cables. I checked the job twice. If the capsule with all my luggage in it broke loose when we hit the atmosphere, it could go straight through the shuttle's skin.

"All done," I spoke into my suit mike. The blinker over the exit winked twice in confirmation and a panel slid back into place, shutting out the stars. I slipped through the circular exit tube and found it easy going because of the rungs inside. A few twists and turns following the blinkers and I dropped into a flight seat.

"I routed you through to the copilot's spot, sir," the voice said. I turned to my left and saw a small man looking at me across an imposing bulge of hardware. "It's a more comfortable seat than the passenger compartment. The view is better here, too."

His skin was jet black. A Negro? But I'd thought none survived the Riot War. Something about the virus blight that swept down out of Europe.

Then I realized the cabin was illuminated in violet and my polarizers had cut in the moment I entered. The pilot's skin must be the muddy tan of the Indians, but my polarizers deepened it to black.

"Lance Officer Shandul, sir." He gave an abbreviated salute. I nodded back.

"This is what the sunlight is like on Veden, Mr. Shandul?" I waved an arm at the phosphors ringing us. "I knew it was weighted in the ultraviolet, but I'm not prepared to take much of this."

"Yes, sir, perhaps I can lower it

somewhat. I fear we are not modified to permit Earth illumination levels here in the cockpit, for which I am sorry. Upon reentry we will not need interior lights at all. I can extinguish them in a few moments. I hope it will not be uncomfortable for you."

"No, no. Just take us down." I looked out the transparent nose of the shuttle for the first time. The horizon was a sharp brittle line dividing the milky swirls of Veden's oceans and clouds from the obsidian depths of nothingness. My polarizers smothered the stars so that the curve of the planet gave way not to the glimmering sparks of distant life, but to zero, blankness, the fatal cold entropy death. Shandul touched a control and the ship spun slightly. Lekki slid into a corner of my vision, screaming to be seen. I glanced at it and it turned white. Careless. I would have a blind spot there for minutes.

I looked down at Veden. ("Down" by training; the anti-g pills were working and even peering straight down at the surface, I didn't feel the visceral clench of infinite, terrifying fall.) Now that I knew what her light was like, I thought I could see a tinge of reflected violet in the white of the clouds.

"It will require a few moments to complete recalculation of orbits, sir."

"Why? Aren't we on a one-orbit ellipse?"

"No, sir. The delay in picking you up came from the time necessary for me to complete satellite maintenance."

I frowned. I had thought the wait

was a little long. "What kind of maintenance?"

"Micro-meteorite repair for damage to weather observation devices, sir. Also replacement of some failed components. We do not have many opportunities to get this shuttle into orbit of late, so I was ordered to finish all the backlog of work up here."

"Ordered by whom?"

Shandul glanced at me hesitantly. Even through the helmet I could read from his expression that he sensed the possibility of getting into the middle of a dispute between officers, and that was the last thing he wanted.

"First officer Majumbdahr, sir. We are very poorly supplied with chemical fuels here on Veden and . . ."

I froze an interested expression on my face and stopped listening. A technician will ramble on for hours about his speciality and it can be fascinating, but for the moment I wanted to enjoy the view.

Still, he'd told me something I hadn't expected. It was natural for a way-station world like Veden to be low on chemical fuels—with a population of seventy-odd million and low crustal abundances (a scrap of a world, really), it couldn't support a major industrial base to manufacture them, and at transport rates on the Jump, Earth certainly wasn't going to ship fuels out here. But somehow I'd expected Veden to be better off than *this*. Imagine delaying weather satellite repair to save fuel!

It was another reminder of how unimportant Veden, as a world, was in the eyes of Fleet. Veden had been a convenient reservation to

give the Hindics. Slowly, as the ramships gathered here and the Flinger grew in importance, this strange double-star system became important. But the real treasure was the Dwarf, not Veden. One should not mistake the caretaker for the king.

\* \* \*

Clouds like frozen custard slid by below. A witches' wail chorused; turbulence as our craft fell. Through some scattered holes I could make out topography. The dots of ivory ice caps at the poles, smothered in snow clouds, already lay over the curved rim of Veden at this altitude. Below, large lazy oceans gave me nothing to see. We fell toward the single continent now—three thousand clicks long, a great rectangular splotch, almost the only dry land on the planet. I craned to see it.

We fell faster; rockets snarled to slow us. Below, fat-bunched clouds like cushions clung to the sharply cut coastline of Baslin, mother continent of New India.

It was raw. The battered coast gave way to mountains that lanced into the interior. A giant had stamped down the edges of Baslin and plucked up the middle, for now a plateau rose in the center. Winding fingers of rivers carved and slashed at its edges, cutting narrow valleys. It was a work uncompleted, a stone forgotten when the sculptor walked away and threw his tools into the empty seas.

*Indian reservation*, I thought, grimacing at the pun. Beholden, like most of the Cooperative Empire worlds—dependent on Earth's ad-

vanced technology that held off alien biospheres, the high-quality microelectronics that Earth controlled, the bioengineering that prevented subtle genetic damage from abnormal radiation levels. It was this last, Earth's cellular consummation devoutly to be wished, that held most worlds.

"Parachute deployed," Shandul called. The sharp crack of the ejection snapped me forward against my restraining belts. Parachute? Dissipating velocity with a chute was efficient, but most prosperous areas didn't take the trouble.

We banked above the great mesa. Every human on Veden lived there, drank from its rivers, peered over the edge—if he dared—into the boiling hot chaos of the windswept lowlands. The jungle was a riot of intense magentas and yellows between slate-gray peaks that jutted up and tore the clouds.

Below, the river writhed and I suddenly recognized it: Tankjor, the torrent that bled Baslin's major lake, The Lapis. And on the shores of those quiet waters was Kalic, our destination, capital of Baslin and thus Veden.

We hit an air pocket with no bottom and I felt a sudden wave of nausea snatch at me. Guiding rockets fired in synchronization with dull slapping thumps that rattled my teeth. We banked, slowly.

Ahead fractured purple and green winked from Lapis and the lattice of Kalic's streets fanned out to greet me. We dropped into a low, comfortable glide. Lekki broke from behind a virginal white cloud as we cleared the stony margin of the last peak.

A great gray expanse loomed ahead. Shandul corrected. The ship dropped like a sack of sand again and colors tumbled off to my side as we turned for final approach.

A glimpse of tranquil sky framed by mountains. A quiet drifting feeling. The shuttle jarred, rumbled, and we were rolling on our landing gear, land animals again, slaves of gravity.

The shuttle coasted up to a wing of a long low building at the edge of a gray field. I could make out a mass of men standing in formation. As we drew nearer, they stepped off into three squares with a delegation out front, all casting long shadows in the late afternoon.

"Thank you, sir. If you'll exit through the side—" Shandul gestured to a port that slid open. I stepped out onto a platform. I opened my suit to external pressure and a wave of music burst over me. It was a long, solemn dirge of some complexity, but it grated. More appropriate to a wake, perhaps. Or it might be a subtle indication of how the staff felt about their new *ofkaipan* Director.

"Greetings, sir!" an officer called at my elbow and the troops in formation snapped into a salute. I tried to make my replying salute as clipped and neat as possible, but the suit was a hindrance.

"Mr. Majumbdahr," I said, "your men look very well turned out." It was easy to recognize his long jaw line and elaborately curled hair from the personnel records I'd studied on the *Sasenbo*. I turned to the next man, shorter and obviously a purebred Hindic.

"My compliments to you as well,

Mr. Gharma. I believe Mr. Shandul is under your command—he handled his ship nicely on the trip down."

All through this my polarizers clicked madly off and on as I turned at angles to the direct violet glare of Lekki, which was setting on the horizon.

"If I can get this off, I can review the troops," I said, reaching for my helmet.

Majumbdahr gestured to stop me. "Sir, this light is harmful to your eyes. We've shortened the ceremony to allow for this. A few more minutes and we can escort you inside, where it will be more comfortable."

I frowned, but said nothing. The band broke into a slightly brisker tune, heavy on cymbals and drums. Probably the Veden anthem. I stood still until it was over, returned a last salute and followed Gharma and Majumbdahr down the ramp to the field. We walked along a roped-off path in front of the troops with an appropriately regal silence and entered the Fleet Control building. Inside there was a medical party waiting for me.

"I should think, Mr. Majumbdahr, that a review of the troops is standard for the introduction of a new Fleet Control Director." My voice carried an edge.

An officer with surgeon's insignia raised his hand. "I believe Mr. Majumbdahr was acting on a request by me, sir. We received word that you had not been acclimatized to Veden, due to the shortness of time. I feared exposure to Lekki without your polarizers would damage your retinal tissue." As he



spoke, our party walked along a dimly lit corridor. I felt awkward and irritated, dragging along my suit like a slow-witted bear.

He turned to the rest of them outside a doorway—I noticed his name plate read Imirinichin—and said, "I believe we can fit contact filters for you, sir, without the rest of the Control staff following us around. If you please?"

"Yes, surely." I waved a hand and they broke up. Imirinichin and I went in the doorway and suddenly the world brightened for me. It was an ordinary office except for a few specialized instruments on one wall. I turned to see Imirinichin, a lean man with the slow smile and wrinkled eyes of one who jests well, putting on goggles.

"The light in here is adjusted to be comfortable for you, and tolerable for me if I wear these. If you'll sit in that chair—"

A nurse came in wearing the same goggles and helped me lower my bulk into place. She expertly unfastened my helmet. In a moment I was free of the suit and no longer feeling like a turtle caught in a sand pit. She lowered a cantilevered mask over my face, fitted twin cylinders to my eyes with care and flipped a switch.

The room went dark and a competent hum came from the apparatus around me. In a moment the computer had measured my cornea, made inquiries with my retinal cells, mused over the patterns of red blood vessels, and switched itself off. The mask came away.

"The first thing a newcomer notices is the high ultraviolet content of Lekki. Exposure to it will

burn out a man's retinal tissue in a few days. There's infrared in intensities sufficient to keep the planet's ecological processes going—photosynthesis and so forth—but the atmosphere can't filter out enough of the violet to make it comfortable for eyes that were developed in the green jungles of Earth."

"So what do I do?" I should have expected something of the sort as soon as I popped out of Jump space and saw Lekki.

"Well, it's no problem—your contacts are being made up now."

I blinked and popped my two lenses into my hand. "Store these, then." Like ninety nine point something of the human race, I wore ordinary contacts. (Interesting: Humanitarian though universal medical care may be, Darwin was right. We've had nine centuries to prove him right. Bad genes linger; we've insured that, from defective eyesight alone, not one human in ten could survive a day in the droughted Africa where the race was born.)

A chime rang. A tiny box popped from a chute transport slot. In a moment tears ran down my face as I tried to fit in contacts that nearly covered my entire cornea. I wrinkled my face.

"They must be that large, sir, to protect the entire eye," Imirinichin said. "These make the best of a bad situation. The original colonists developed them."

I looked up into a room bathed in dusky twilight. The contacts filtered out most of Sol-normal light. Imirinichin was nearly blind in this room.

"No, even worse," he said when I asked. "I'm adapted. Permanent

colonists—and that's nearly everyone on Veden; we are—" he glanced downward—"somewhat isolated . . . well, they have their retinal patterns altered, cell grafts, tinturing, all to accommodate Lekki's spectrum. The alteration is much more comfortable than the contacts you're wearing."

"Permanent, though."

"Yes. I gather you are here on rotating assignment?"

I nodded. I couldn't hope to be kept in service after what the Council called the "current crisis" was over. If it was ever over.

"No skin treatments, then, for you."

"Or else I'd have to live near an F-sequence star thereafter?"

"Yes. Veden would never have been colonized but for the Flinger. Adaptation is irreversible."

"What about bioadapts?"

"I'll send the injections around in the morning. Also the formal Fleet uniform for Veden. It covers you nearly completely, sir."

"From the ultraviolet." I shook my head. "But . . . when do I see normal colors again?"

Imirinichin looked chagrined. "We can't get compensation over the entire spectrum. Colors will be shifted and changed for you. I hope it will not be of great inconvenience . . ."

## 2

Science is spectrum analysis; art came into the world with photosynthesis. That's the way I like to think of it: not knowing, but using.

Inconvenient? The greatest favor a friend can do for you is, every so

often, to tilt the world at five degrees. Everything dances, fresh-scrubbed. The universe becomes a fuller place because you must notice it.

So for the rest of that day I went around in a distracted daze. Light appeared latticed, shifting abruptly through three shades as I watched. Hues blended. Veden became a chromatic chorus.

Gharma came toward me, his smile flashing brilliantly against chestnut-brown skin pocked with the large pores of the Hindic. He was a heavy-set man with dark hair and eyes that expanded a fraction just before he spoke, as though the words were going to explode out of him. We exchanged pleasantries while, outside, fractured splatterings of yellow beckoned. He curled his words lazily, laying them out precisely for the inspection of the listener.

Majumbdahr followed him, taller and with the slightly slanted eyes and lighter complexion that spoke of his mixed ancestry. "It's after normal working hours," he said, "I don't think a tour of the Fleet Authority offices would be particularly useful for you today, sir."

"I presume you've gathered the usual summary for my review?"

He smiled. "Certainly. But do you want to read them on your first evening on Veden? I imagined perhaps you would care to meet a few under-officers . . ."

"No. It was a tiring trip. I will probably want to sleep. Now, my offices?"

We shot up seven floors and emerged in an ornately styled warren of carpeted rooms walled with

imposing bookshelves in something like leather and wood, but with a raw orange cast that signified their native origin. My suite: chart rooms crammed with orbital simulation displays and readout screens, space for secretaries and aides, conference chambers (more leather, more wood), a private communications link that could override the Control facilities in an emergency, tape files and lastly my office, hushed in soft textures and tones, space for pacing or thought or meditation, an enormous desk—wood again—with every conceivable aid built into it. It overlooked the field. A forest beyond underlined the wavering wink of Kalic's city lights in the distance. Dusk was ending and blue shadow fingers cloaked the field.

"The summary, sir," Majumbdahr said. I took the case with a large red PRIORITY seal on it and tucked it under my arm as we went out.

"Your quarters are some distance," Gharma said. "I believe Mr. Majumbdahr has taken care of preparations there."

"Fine," I said, my voice echoing in the elevator as we went down. "I would like to see both of you gentlemen tomorrow morning, nine hundred hours. We'll have quite a bit to talk over."

Gharma said good night and Majumbdahr led me out the front entrance. It was a rather impressively delicate structure, curved lattices supported by columns and cantilevered beams of rakish tilts that would have been impossible in heavier gravities. Everywhere curves; no angles, no sharpness or sudden contrast to jar the eye. A

man's voice reflecting back from the building carried a tinkling note of hidden laughter.

Majumbdahr pushed the car's throttle forward and we pulled out silently. Steam cars fueled by low-grade hydrocarbons are common in the colonies; on Earth they are rare, owing to the depletion of our final reserves.

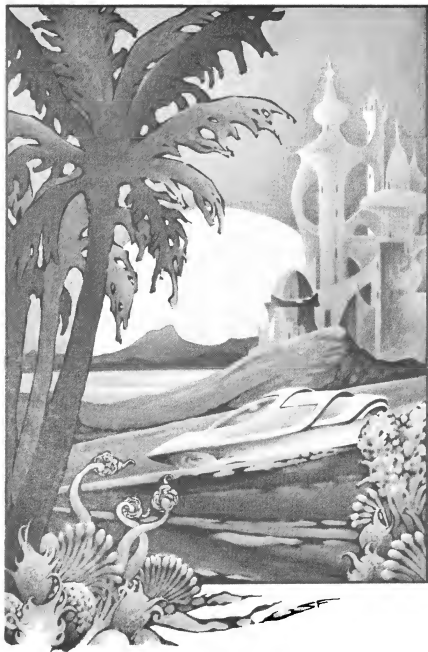
Kalic: spires, cubes, towers, ovoids, hummocks of subsurface dwellings, an air of quiet and tranquility impossible on Earth for centuries past. Our sedan turned onto country roads, into the velvet shadow of a hill. I knew the local flora from a stet I'd read on the loop out from the Flinger. As we passed, three snakeblossoms jerked up at the roadside, hissed—they were that loud—and puffed out their petals. Poison motes danced. Through the low, flowery brush, I could see beyond the blue winking of water.

"A well-formed world," I murmured. Veden's equator and the plane of the ecliptic are aligned, giving mild climes here on the mesa. Just compensation, I thought, for the perpetual storms that raked the lowlands, where the air grew thick and acrid.

"Your home has The Lapis at its doorstep," Majumbdahr said. "Lekki rises directly across the lake most of the year."

Fleet had found it good policy to house their prime officers in the best residential districts of the Member Worlds. That established their social class and made for easy relations with civilians who ran local matters.

I ordered Majumbdahr to stop the



car where we could overlook The Lapis. It was a solemn flat blue. A holy place, I knew, used for ritual bathings. I pointed to something gliding in far across the lake, catching the last ruby glint of Lekkilight. I knew a slight change in gravity opened up new possibilities, but—"A bird?" I inquired, pointing.

Majumbdahr squinted. "Not likely. In the lowlands, perhaps, such huge beasts would live. No, it must be a man with a featherwing."

The house was a faint blur high up the hill, its pale light filtered through slender ferns. Mist gathered. We purred up the driveway and stopped at the base of the ramp. Something fluttered low over our heads, busying the air, and lit in a fern. It warbled a high singsong call. Friends answered down by the lake, a sad note that drifted up through the gathering wetness of night. I breathed deeply, relaxing. So this was to be home.

The house had a look of spun soft aluminum, of tile, of blackened enamel. Its roof floated high above visible support. Chunks of warm yellow light reached out to gather the forest around it like a blanket.

We got out of the sedan and I strolled up the ramp, hands in pockets. More warbling calls. Then something came gliding, silent as a wisp of fog.

A bark, a roar.

Orange flame forked out of the sky.

I turned.

A dark winged form behind the stuttering flame.

Something stung my face. I skittered to the side.

A hail of fractured concrete

nipped at my heels, spattering into my eyes.

The orange forking leaped near. I darted left, then right. Majumbdahr shouted something. I dove to the side. The ground split behind me. A flash—

Then nothing.

Silence again, but no bird calls. Moments went by on tiptoe, fingers to their lips.

The winged man was gone. An instant later I heard the mutter of his assist engine cutting in. In a few moments he would be clicks away, could go down anywhere in the forest and hide.

My obedient glands shot a brew of adrenalin and sundry hormones through me, as Majumbdahr and I prowled the grounds. Nothing moved. The pocked rampway testified to his firepower: twenty-four energy bolts, including the last blistering shot.

"Somebody," I said to Majumbdahr, my muscles singing with the adrenalin, "somebody here doesn't like me."

"Sir, I have no explanation . . ."

"I don't expect you to."

"It is most unusual."

"Maybe somebody's prejudiced against Fleet Commandants these days."

"But Veden is a peaceful community."

I stood, hands on hips, craning my neck at the sky that had so recently spat at me. "Think you can trace that flyer?"

"No. There are many."

Majumbdahr sighed, exasperated.

"The weapon, perhaps."

He got on the car comm, sent out

a bulletin. "Don't let Security send a team out here!" I called out.

"Why not, sir?"

"I'll take care of myself. They can patch up the ramp tomorrow."

"Sir, I think—"

"I repeat, I'll look after my own safety." If a staff gets the idea that their Commandant hides behind a phalanx of guards whenever matters get touchy, he will command their actions but not their respect.

Majumbdahr nodded thoughtfully, mouth tightening.

"Meanwhile, let's go inside. Apparently the house is well insulated; whoever is inside seems to have heard nothing. Don't mention this."

The fog was rolling in over it now, bringing body and flavor to the air. Creatures trilled airsongs again.

The thick door was opened by a small brown man with a touch of gravity in his manner. Patil, the houseboy, I learned, an honored domestic of many years' service. He was quiet and efficient and had us seated within a moment by an open fire (burning wood!), sweating drinks in our hands. He introduced Jamilla, a woman of indeterminant age and smooth skin with a look of playfulness about her; my second-rank domestic, cook and bed-chamber girl. Majumbdahr explained that although Veden was infrequently visited, the normal formalities and liberties common to the Empire were the custom here too, and I should not have difficulty in adjusting.

We walked onto a stone platform that jutted out from the house to clip the tops of trees that grew from below. I was still wearing my Spar-

tan coverall that was standard gear with space suits.

"Patil will dress you in the Fleet uniform appropriate to Veden on the morrow," Majumbdahr said. He looked at me curiously, as if trying to understand this strange new Director who demanded the official Summary in his first hour on the planet, and showed no interest in meeting other officers his first evening, and shrugged off attempts on his life. Fine; let him.

A small creature, something like a mouse with bat wings and furry topknot, coasted in through layers of fog and landed on my shoulders. I picked him up on a finger and saw his wings were translucent and covered with fine pearly drops of moisture.

"An air squirrel," Majumbdahr said. "Scavengers, if you let them be. They're really too friendly for their own good."

"There seems to be much flying life here." I listened to the beat of wings above us and the faint high cries of pursuit.

"Low gravity. We have not been harmful to most of the forms, so they do not resettle on other parts of Baslin."

"Why couldn't they migrate to the lowlands and leave the plateau to men?"

He smiled. "The same reason we do not live there. With both Lekki and the Black Dwarf nearby, Veden is subject to large tidal forces. The winds and heat of the lowlands are too variable and totally unpredictable. Up here on the plateau we know the prevailing winds—always inward, from the sea. The flying animals do too. They couldn't sur-

vive in two-hundred-kilometer gales any better than we."

He took the air squirrel from my finger, coaxed it with a crumb from his pocket and threw the bread up into the air. The animal leaped, caught it with a snap and coasted away on an updraft. I looked at Majumbdahr and decided I liked him. Which was well, for if I followed my plan, he would be one of the few Vedens I would know.

We said our ritual farewells. I finished my inspection of my home, Patil and Jamilla following at a discreet distance and seeming pleased when I approved. I exchanged pleasantries with them, saw that my belongings from the shuttle were stored properly and had Patil lay out my bed clothes.

A warm bath braced me. Shortly afterward I sprawled on my bed and cracked the seal on my case.

I studied the Situation Report from Fleet Headquarters first. This was what I'd been waiting weeks and months to see. As a passenger on the *Sasenbo*, I'd heard rumors and gossip but no reliable hard information about the war, but now as a Director and Commandant, no matter how low, I was entitled to know.

Siganex IV had fallen. The same pattern as on Regeln; a tactical feint by the Quarn, the Plague descending, death and chaos. A 3D star chart showed the new boundaries of the Empire and probable points for the next Quarn attack. It was a shock. The last such display I had seen was shortly after Regeln, and the pitiful collapsed ball I saw now was a fraction of the Empire then. Several isolated outposts had fallen

in the last few weeks, I noted, and the pinpoints of light which indicated Fleet's dispersal of ships were asymmetric, obviously unable to coherently defend the contracting boundaries.

I thumbed for a closeup on my flatpad display device and the region around Lekki and the Black Dwarf leaped into focus. There were few neighbors. Fourteen lights out the red star Elaren blazed down on a small radio-ferrite extracting mission. Beyond that were a few other temporary expeditions on inhospitable worlds, there for limited economic purposes. The nearest full-status colony, larger even than Veden, was Calning, in orbit around a massive gas giant of a planet that in turn circled a G3 star. None of these had detected Quarn. The nearest contact was seventy-eight lights out, a very recent sighting only seven lights from the massive colony and base at Beta Hydri. The Quarn appeared to be trying to pinch the Empire's sphere into two irregular volumes of human-occupied space. But if past experience was any help, this pattern was as much the product of the Quarn's irregular tactics and seemingly random strikes as anything else.

That was the point: the fact that Veden was buried deep in the remaining Empire volume was no insurance that Quarn would not appear here tomorrow. This was an arbitrary war, not played according to the traditional game psychology of Fleet's computers. As yet no one knew how or even why the Quarn took a planet. Or what could stop them.

So Veden wasn't safe. I would

have to oversee the steady rain of transferring ships dropping out of Jump space, looping around the Dwarf and off to some new destination with only a brief burst of news as greetings—oversee it all, keep the Jump ships and ancient ramscoops moving, while watching over my shoulder to see if the Quarn had suddenly winked into existence behind me. And Leibniz had once proposed that this was the best of all possible worlds.

I picked up the Local Situation Report, then tossed it aside. Gharma and Majumbdahr could brief me on that tomorrow. I was hungry for more details about the Quarn, but the terse Fleet dispatch wasn't giving anything away that it didn't have to.

Next came the Local Personnel file. I checked the names and positions that interested me and the small piezoelectric monitor beamed a request back to the computer sitting under my offices. It squealed as the required information logged into its ferrite memory. I cradled the flatpad on my knees, flexed my back, which was becoming accustomed to significant gravities again, and started to read.

Mahesh Majumbdahr, age forty-seven Earth years, height two meters (same as myself), hair black, eyes black, born Earth (I raised my eyebrows at that) to Mainland parents of low stock; parents emigrated when he was five, settled on Veden. Attended usual series: primary technical, sensitivity and arts, showed proficiency in athletics and played *odeynsn* professionally for four years, enjoyed some fame as a writer of haiku, joined Fleet at age twenty-

five. Security cleared maximum for Lekki system. Married on long-term contract, terminated two years ago with mutual consent.

There was much more relating to his professional career, and I absorbed it automatically. But what I was after was more than the raw facts of the man: I needed to know what bias he had, how well he could work on a closely personal basis. Most of that can only be judged by intuition.

Lapanthul Gharma, age fifty-two Earth years, one-ninety centimeters, hair brown, eyes green, descendant of three generations native to Veden, considered high caste (this last a recent entry; perhaps caste was only lately added as relevant data?) and of high standing in local sect (unnamed). Parents both of notable rank; father recently retired from political circles to devote his time to meditation and enlightenment (insert note: rumored he was forced out in power play by agricultural interests). Entered Fleet service at age twenty-one and declared for commission two years later. No known other interests. Same security clearance. Married permanently. (Interesting. Quite rare.)

I went down the list of other staff members, some of them unusual, others dull as dirt. Strange what personnel will think relevant and stick in a man's file. I read several accounts of illicit affairs and Resultant difficulties, none of them bearing even slightly on Fleet business or security reliability but quite juicy, then chucked it aside. No time for gossip. (Not much, anyway.)

With surprise I felt a touch of



hunger. I sounded a chime over my bed and Jamilla came in with lowered eyes, took my request for fruit and padded quietly out.

I leaned back and thought about my two executive officers. Gharma seemed more steady, but less fond of the spark of a new idea. Majumbdahr might make a better friend, if that was what I was after.

And maybe I was. I had decided on the *Sasenbo* to save my time on Veden, not become tangled in the thousand loose ends of a military command. There was only one way to do that: find a core of men you can trust and let them make a lot of the decisions. Gharma and Majumbdahr were going to be the core. It had to be more than the usual delegation of authority—every officer knows to release some of his hold or he'll end up ordering his own paper clips—and I would have to play it by ear.

I needed time. Let Fleet agonize; not for me the plugging of holes in a crumbling dike. There was no joy left for me in the warm knit of Sabal. The Quarn had cut those cords.

Veden had never used the Sabal Game. It was the spiritual center of the Hindic minority, a small fragment of the Empire brave enough to colonize this planet when it was the most dangerous of all the known worlds. That was before the Flinger was conceived, before anyone knew this system could be so vastly useful. Once the Flinger was begun, Veden still successfully resisted the Mongul culture. Perhaps, all told, this was the best place for me now.

I was a commander again, but without the spiritual matrix Sabal

had given me. Adrift. Maybe there was something on Veden for me. In the guttering ruin of the Empire, Veden might flicker as the only remaining light. Here, at least, I could savor life again, and ponder. Earth had gone stale for me long ago.

The Hindic and the Quarn. Unknowns, all. Veden was at least human. The Quarn held all the mystery of the unknown.

Jamilla entered with a bowl of cylindrical fruit and a snifter of red liquid. The fruit was tough at first but after a moment's chewing released juices with the flavor of warm almonds. The drink was a clashing—a tang of oranges, with a smooth background like apricot nectar. Somehow they resolved each other and quenched my thirst.

I caught Jamilla studying me with interest. No more than a fraction of the people here were Mongul in descent, and certainly she had seen few Polynesians such as me. I supposed my lighter hair and thin beard (a gene of the Caucasoids, that) were unusual, but . . .

Normal formalities and liberties, Majumbdahr had said. I raised an eyebrow in speculation. It had been a long time.

I finished eating, put the tray aside and made a formal sign understood throughout the Empire.

Jamilla smiled and unfastened the brass buckle at her side. Her sansari was a wisp of cloth wound into expert folds over her slim body. Watching her gracefully remove it was an entertainment. She came into bed with the good taste not to extinguish the lights. She was a scent as sweet as the wind.

In the night I rose, heart tripping, the winged man filling mind's eye, and the thought raced: *Who was he?* A Fleet-hater? Religious fanatic? A man hoping that a better universe could come out of the muzzle of a gun? What a sad old idea.

I opened *click* the garden portal and sucked in frosted night breeze. I felt like calling out into the muted darkness, *You wouldn't have killed Fleet, you know. It goes on.*

It goes on. On and on, until disorder eats even the Empire. The Quam were on the side of entropy, the final winner in all this mad scramble.

Entropy. The amber dimming of all suns, the blunting of all momentum.

And neither you nor I, my enemy, can do anything about that.

### 3

In the morning Patil aided me in fitting my Fleet Kochu robes. They shielded the wearer from Lekki's ultraviolet and were robes only by convention, for they retained pants and vest. The only addition was a cowl that rode on the back of my neck and could be slipped over to shade my face.

My contact filters flushed the morning with an orange tinge even though Lekki's violet dot threw shattered dancing light up to me from Lapis. The water traced a pencil line of horizon across two thirds of the view. I could see the current ripples as the triple tides of Lekki, the Dwarf and Pincter, Veden's moon, pulled at the lake. The beach

a hundred meters below was a broad white plain, worn smooth by the hissing waves.

All this I saw while blinking the contacts into place and walking down the cratered ramp to my staff car. The driver saluted and with a slight piping of steam, we went down into the world of men.

I wasted an hour in the unavoidable preliminaries in my new offices; nodding at secretaries, exchanging ritual salutes with second- and third-rank administrators, accepting a traditional welcoming gift of burnished rice and layered spices (take one mouthful, then offer it to the troops). Then to the main conference room, filled with twenty staff workers. Their eyes widened slightly as I ignored convention and sent them all on detailed, eminently defensible tail-chasing jobs that would take days or weeks to complete.

Correlate fluctuations in rice crop and number of ships passing through the Flinger; compile composite history of all minority economic alternatives used on Veden which had applicability to Empire economy; detail origin of more recent sects (this I could actually use); each division prepare reports, sharpen up training schedule, stipulate defense capability, justify all current supply levels. The orders were a compendium of jargon and catch phrases, but it accomplished the result: keep them busy, get them out of the room. Only Majumbdahr and Gharma remained.

"Now tell me about Veden. What are the people thinking?"

"Not very much thinking is being done," said Majumbdahr slowly.

"There's a great deal of reacting, though."

"How do you mean?"

"They're confused. The reports from the colonies further out haven't been precisely encouraging."

"Are you sure this isn't simply what you've been hearing from the population of Kalic alone? On Earth the city populations are breaking down much faster than the rural areas."

"Even on Veden, sir," Gharma broke in, "there are not substantial numbers living among the jungles. They are not a significant group."

"Why aren't they spread out?"

"You haven't seen Kalic yet," Majumbdahr said. "Veden isn't like the other colony worlds—the Mongul cluster-home isn't popular here."

Gharma gestured with his hands as if a flower were unfolding. "Our cities are as pods on a quasimakas plant, spaced to insure adequate sunlight and full growth. The openness of the growthlands is always with us. To live otherwise is . . ." He stopped awkwardly, realizing that he had almost implied a criticism of the Mongul aesthetics, to which presumably I subscribed.

I gave him a smile. "I quite understand. The same principles once held even on Earth. Necessities of population change these things." I turned to Majumbdahr. "I take it you feel even the citizens of Kalic and the other outlying cities are not truly in what the Empire would regard as an urban environment?"

"Yes, as far as I understand Fleet's analysis."

"I think it is certainly true, sir,"

Gharma said. "Veden is much more stable because of it."

Majumbdahr looked at him a little sourly. "I wonder about that."

I glanced a question.

"Well, sir," he said quickly, bringing his hands together on the opaque gray of the conference table, "I don't like the feeling that's running through Kalic. I wasn't born here, but I think I have a good grasp of the gestalt. People are seething inside. It hasn't come out yet, but it will."

Gharma shook his head. "As you may see, sir, we have talked of this before."

"Natural enough. In the absence of a Director you were responsible for knowledge of the political side. It's an open secret that Fleet is now relying more on its reports from Directors than the official opinion given by the Embassies."

Gharma blinked rapidly. "Oh, no, I'm afraid you do not understand. This is not a political matter at all. We are speaking here of the tranquility and enlightenment of the people."

I nodded, silently pleased. They were both showing a sensitivity that might easily have been drilled out of them by now, in Fleet. I couldn't use men who thought like political hacks, gluttoned with detail and trivia, afflicted with a ward healer's smug myopia.

"Of course," Majumbdahr waved the comment away with rough hands too large for the rest of his body. "But sit in the temples, Lapanthul"—side glance to me—"Mr. Gharma. They're stirring. Their meditation is not enough."

"Is that true, Lapanthul?" I said.

"I do not *feel* that it is—and that is the final test. But I am not quite as, ah, basic as Mahesh. I do not move in quite the same spheres as he."

Majumbdahr settled back in his formed plastic chair. "What he means is that his sect is very high in caste, and mine lies somewhere in the middle." He grinned. "It gives one a different slant, I'd imagine."

"Caste? I'd thought . . ."

Gharma cleared his throat. "Yes, it does exist on Veden. We all know the Empire has no such thing, but I have heard that we are not alone—other colonies, and not Hindic in origin, have caste, or something like it." He said this with the somewhat stiff and defiant air of a man confessing a minor but habitual vice.

"But *caste*. The term . . ."

"Historically it was an evil thing," Majumbdahr said. "The choice of word is unfortunate. I've always held it should be something like 'station.'" With this he glanced up at Gharma. "But the social conventions favored the traditional term. It does not have the same connotation as in Old India."

Gharma smiled brilliantly. "He means to say, *not yet*. Mahesh thinks we're headed that way, nonetheless."

I realized that they were good friends, despite their differences. There was a warmth in their argument, as though it were an old shoe they felt comfortable wearing.

"All right, so there's caste," I said, sighing slightly. There was something about this conversation, a sort of agonizing slowness to con-

verge on the point, that may have been just the Hindic way of doing things. I was going to have to get used to a more indirect approach. "It would seem that by traditional sociological principles, that would make Vedens more secure, happier with their place. But that's no help. People throughout the Empire were contented, they hadn't lost phase. But I've seen all of them struck down by the Plague. They had no defense."

Gharma looked suddenly sadder. "We know that. I don't understand how it could happen, when—"

"Have you had any cases here yet?"

Both of them looked slightly startled, as though the thought hadn't occurred to them that Veden was vulnerable. "Nothing has been reported—" Gharma started.

"Do you know how to recognize the symptoms? Has Fleet sent through instructional information, case histories?"

"Yes, a little. I have read it myself. It is difficult to believe." Gharma shook his head slowly, as if realizing for the first time that the Plague was real and not just the abstract subject of a series of dispatches.

"Break out all the material you have on the Plague," I said. "Form up classes from personnel not on essential duty. Get space in the civilian press for full coverage: how to spot the symptoms, first signs that you may be getting it yourself, treatment, history, the works. You've delayed on this too long. We've *got* to be prepared." I banged my fist on the table.

Gharma got up and went over to a

wall communicator, spoke into it in a whisper and returned. "Done," he said softly.

How could they have let it go? It was one thing to be bottled up on this outpost, watching the ships flash through the Flinger but seldom having one land—and quite another to forget about defending the planet.

"I take it these measures are of some use against the Plague?" Majumbdahr asked.

"Perhaps, perhaps," I said, distracted. Did they know how much I'd been through? Forget it; no time to worry. "They seem to slow it down and sometimes keep the people alive. That's all we know, but it's enough."

"I think the people probably know more than you'd think, Lapanthul," Majumbdahr said. "There have been numerous news services' reports, 3D programs. Not much, to be sure—" He glanced at me to show that he knew as well as anyone about Fleet censorship. "—but I think they may be prepared for the Plague, when it comes. Giving them the complete facts will make it easier—fear comes from the unknown, not the known. That's why they're in the streets—fear."

"The streets?" I asked.

"Civil disturbances," Gharma said earnestly. "A few, and quickly contained."

"What about?"

"Fleet movements aren't well-kept secrets," Majumbdahr said. "A lot of civilians work in Communications, so they know there isn't a respectable Task Force near this system. If the Quarn come, we'll stand alone."

Gharma nodded. "I don't think they realize quite that they *are* afraid. The violence is so undirected—"

"Reporting, sir!" It was an official Fleet secretary I'd sent on a makework assignment an hour ago. "Fleet vessel *L. S. Caton* has passed formal recognition procedures after emerging from Jump space and requests final orbital check for her Flinger orbit."

A mass of jargon; it meant I had to give my final meaningless approval of an orbit already programmed for the ship. The *L.S. Caton* had been locked into the course several days ago, but the ancient formalities of the Port Master had to be observed.

"Granted." I really didn't give a damn about the empty motions of Fleet business any longer. I wanted to see Veden, to meet the myriad sounds and smells of a new world, where there were still real problems to solve, not sit in this office.

"Mr. Majumbdahr! Do you think you could find a suitable restaurant in Kalic for lunch?"

#### 4

Everywhere there was color. Magenta fronds, tangled snake vines of a chilled deep green, the impersonal dull tan of the roadway—and all crowned by a clear sky of even blue. The colors reminded me of my contact filters and I blinked rapidly a few times. They were occasionally uncomfortable.

We crossed the large bustling square in the noonday rush. Clicking of a hundred sandals. Murmur of conversations as knots of friends

drifted past. No matter how far humans might fly in their machines, these things held constant.

Cramped shops displayed their wares with abandon, letting robes and bolts of cloth spill in gaudy excess from their boxes. Beads and ancient books shared display cases; fruits and spices competed for the same spot in a window. There was a cheerful easiness about it, and the people were the same: talking, laughing, greeting the price of items with a feigned sharp bark of disbelief.

We cut across the square with Lekki straight overhead, burning a hole in heaven. A few men and women clad in raiments were speaking to the passersby of their mission in life, advising them of the benefits that accrued to anyone of their chosen faith. But not pushing it, not with the intense drive of the cultists I had seen on Earth. There was a relaxed air here. *Fine*, I thought. *But I am beyond that old snake oil now.*

Five of the women in a circle chanted—

I am  
Not great or small  
But only  
Part of All.

We turned into a narrow street, almost an alley, that was the exact opposite of the clean, broad streets I'd seen. Here the even sheet of plastiform street changed into a bumpy track of winding black cobblestone. Some shops huddled together, and others sprawled; all were busy with people buying and selling, bartering in high-pitched

tones, inspecting the goods, eyeing the shopkeeper. It was like a page of history. I recognized emblems and signets of Old India, some even dating from before the Riot War.

"This is part of the 'reconstructed' district," Majumbdahr said, "devoted to retaining the atmosphere of the Hindic past. Much of it is honest and true to the original. Those rice bins"—he gestured at an enormous tub with an indecipherable scrawl in red on the side—"contain pure strains a gourmet would have recognized even in Old India. They're kept in controlled environments so the Veden ecology doesn't alter them even slightly."

"All this to retain the old ways?"

"The flavor of the past. These things, these crafts and methods"—he motioned about us—"were part of the Rebirth of the Hindic people after the Riot War. It is well to keep them. They might be useful even again."

I looked at him curiously, wondering if he was thinking of the Quarn.

We passed through streets that seemed to reek of ancient ways and thoughts. I paused occasionally to watch a grinder or a spin-drifter at work, saw an elementary syncon computer being used to operate a foundry that produced images of Fanakana, a winged dragon-dog of early (and now dead) mythology, walked among carved erotic statues ten meters high, sniffed the grainy texture of air filled with the sweat of work and reek of spices.

It was a bit unconventional for Majumbdahr to bring me here. Usu-

ally a Fleet underofficer would take his superior to a more formal and military luncheon, to demonstrate his seriousness. But then, Majumbdahr was an unconventional officer.

I remembered one of the incidents related in his file. Some years ago, in a lesser post, Majumbdahr had dined alone in the Kalic officers' mess. The room was busy and waiters did not notice him, seated in a far corner. He became impatient. But instead of stalking out, Majumbdahr went to a phone booth and called a restaurant that delivered meals. He asked them to bring a spiced dahlma to the officers' mess. When it arrived, he made no great show of eating, but a few officers noticed and the story spread. The Commandant heard of it and investigated the standards of service in the mess. Soon matters improved. And through it all Majumbdahr had said nothing, never raised his voice in criticism. It was an effective technique.

We reached a small squat restaurant and found our way inside through near-total darkness, sweeping by bead curtains under the guidance of a wrinkled old headwaiter.

"It is very fine," I said after we were seated. "I have seen nothing to equal this district anywhere in the Empire."

Majumbdahr smiled deprecatingly. "Really? But these things are necessary—cultural drifts occur without them. How is it done on Earth?"

"By symbols, mostly," I said, trying to phrase my answer correctly. "We—or rather, they—focus on the part rather than the whole.

Instead of a statue, a stone. A forest becomes a plate of wood. And there is the Sabal Game, of course."

He nodded. "The Game is played here, as well, but only by a few. We do not find it particularly relevant to our needs."

The waitress brought a steaming plate of rolled breads like papadams, meat-soaked sauce inside. "What replaces it?" I asked.

"A number of things, perhaps none of them as impressive as the Game. This district, for one. The isolation we have from the rest of the Empire helps, too—few cross-cultural influences manage to get here, and when they do, they're sometimes so extraneous as to have no effect. And of course the tradition of the Savant, the Saint, the Guru."

I finished the breads—which had turned out to be a sort of woven rice cake instead—and paused.

"This meat? It is—"

"Of course," Majumbdahr shrugged. "Organic products."

"I've heard of colony planets on which—"

"Not here. No lower forms are slaughtered."

I smiled and continued eating a side dish of marinated vegetables placed at my elbow. The alternative to the organic tanks—once it was agreed that animals, being spiritually of the same Order, could not be harmed—was vegetarianism, a singularly difficult and unhealthy path.

"Savants, you said?" I continued. "We had few of those on Earth or the colonies I visited."

"I don't believe the practice is part of the Mongul heritage. In the dead religion of Confucianism it

had a place, I'm told, but the Riot War ended that."

"Some hold it died in the First Republic that was formed on the mainland just before the War."

Majumbdahr bit his lip. "Perhaps, but it doesn't matter." He didn't want to get involved in the intricacies of Empire political history, particularly since they might still touch on the present. "The old ways of Zen, when they reached the inlands after the War, fairly well destroyed the appointed station of the Guru. One doesn't need a guide to find what is all around him and yet within himself."

"I would not put it quite that way," I said, laughing gently. I remembered my first instruction, the koan I had wrestled with for seeming ages when I was a boy. It was a classic ambiguity, simple and full of depth for meditation. Its eleventh-century name (Christian reckoning) was the "Three Barriers of Hung-Lun."

*Question:* Everybody has a place of birth. Where is your place of birth?

*Answer:* Early this morning I ate white rice gruel. Now I'm hungry again.

*Question:* How is my hand like the Buddha's hand?

*Answer:* Playing the lute under the moon.

*Question:* How is my foot like a donkey's foot?

*Answer:* When the white heron stands in the snow, it has a different color.

The first answer? It indicates that

facts of birth and death are snow flakes in the great wind of time, as trivial as the eternal cycle of hunger and satiety. The second: let loose your constant reasoning, sing to the moon and be the Buddha. Be *here*. And the third? I do not think I can express it, even now, in words.

That was the first stage, *zazen*, individual perceptions of the Essential. After that came social awareness, the *gestalt*, Sabal. But after that, what?

\* \* \*

Once I crashed on a frozen world. As a young Fleet officer I'd been delegated to make a short run to a way station there. I blew a wing coming in. I snapped a forearm and quickfroze it, but I couldn't chill down the three crushed ribs. My comm failed high up, so there was no trace on me. I had to walk out. Through ice fields glimmering blue and white, through rock and snow.

There were human renegades there, descendants of criminals who'd washed up in that solar system five hundred years before. They had quaint practices. They thought travelers were stalking horses sent by God, for the virtuous to take out their anger on. First they'd hunt you, then they'd run you for a while in the open, then they'd cut a few tendons and run you some more. It would take you a week or more to die.

I shot three of them but a fourth slashed my side with a bone knife. Five others started running me, letting me get just enough ahead to think maybe I was breaking into the



clear. That went on for three days. By that time my rations were gone and my right leg, where a spear had ripped the insulation, was going dead on me.

I worked my way through a narrow pass in the ice. My last personnel charges had timers; I set them and blew quite a few tons of ice into the pass. That gave me time, but by then I couldn't use it. I walked a while. Then I crawled. I passed out.

When I woke up, a product of my delirium was shuffling at my shoulder. It was thirty meters across. Skin like crinkled tar, a huge cone at the top, gnarled legs at the bottom. It put a feeler in my mouth; I couldn't stop it. The feeler turned out to be a tube. Something warm and sticky and maybe sweet came through it. I drank the warm whatever and peered at the cone, which was slowly tilting around toward me, and went to sleep.

When I woke up, it was gone. No tracks in the snow, nothing. I lay there for a day and prepared to die. My lead on the hunters was now a day, maybe two.

In the long night my delirium came again. Perhaps the cone creature visited me, with its shambling, aching slow walk and sticky brown tube. Perhaps the wind made me hear voices. I went into a place where there was a stilled center. It was a space different from the sureness I knew in the Sabal Game, a territory where I skated, skated over a sheen: the ice that films the universe. I sensed it as Other. The fulcrum of my salvation.

In the morning I woke and walked. I reached a power nexus

the next day. A skimmer came for me.

Seven years later on a convoy flight I chanced on a scientific report from that world. They had found a huge lifeform, one that communicated by radio. Its principal sensory organ was an immense radio antenna, evolved for some unimaginable communications. It clearly sensed the stars, and some small prey—but what else? Attempts to make contact seemed fruitless.

So the cone creature was not from my delirium. Was the sense of Other also real?

An ancient philosopher once observed that when a man saturates himself with alcohol and sees purple snakes, we laugh. When a man fasts and sees God, we listen. Should I laugh, or listen?

\* \* \*

We had finished the coriander-laced curry and the world had taken on a deep, salty tang. I had been silent in the lazy warmth of the meal, but then Majumbdahr said intently, "You were correct about the preparations, sir."

"How so?" I focused on business again.

"We erred."

"By not briefing staff and important locals, setting plans for Slots, and so on?"

"Yes, that. We had no one of your experience. Here news of Fleet seems so distant."

"My experience?"

"Well, yes."

"What experience?"

"You . . . contracted the illness



yourself, sir. I believe?"

"So?"

"Not many recover, it is said."

"So it is said. I wouldn't know."

"Still, sir, it is an unusual accomplishment . . ."

I cracked a wry smile. "My unconscious did all the work."

"We believe in fate here, sir."

"Look," I began, indulging my taste for contradictions," being superstitious is bad luck in itself. Don't—what's that?"

A low rumbling cry from outside, the sound of many voices.

"It might be some Lancers, sir. They are a new sect. We have been urging local authorities to keep them under control, but—"

Impatient at the growing babble outside, I got up and threaded my way through the topple tables of the restaurant.

Majumbdahr called, "Sir, that man will—" At which point he did. He turned to hurry away from the entrance and slammed into me, almost knocking me over. The man blundered on without a glance.

I went to the entrance. The crowd was backed up flush with the old worn shops, facing toward the narrow street, packed in tightly. I couldn't see a thing. Some faces were tense, others unconcerned. Obviously the running man had sensed something he feared. The chanting came nearer. It was almost covered by the babble of conversation from the pedestrians, obviously expecting a show.

Majumbdahr materialized beside me. "Help me break through," I yelled.

Together we pushed against the wall of backs keeping us from the

street, shoving together until something gave. I jostled forward through the bodies, ignoring scowls and snarls. In a moment I was near the front.

The Lancers had just gotten to this point and were streaming by, shouting something about Veden and rights, waving tapestries on bamboo poles, stamping and hooting and jamming the onlookers back from the center of the path. The crowd didn't seem to be worried or afraid; they treated it as a lark, an entertainment. It seemed to me a lot of noise for nothing—it was impossible to tell what they were shouting about.

Then I heard a slight scream from further back in the Lancer column. A sharp cry of pain, a bark of outrage. Then another. People around me stirred. The barrage of sound from the Lancers increased in volume but now I could hear the screams clearly over the chant.

Majumbdahr caught my eye and gestured toward the cries, which seemed to be getting closer. I nodded, asked a question with my eyebrows. He shrugged. Evidently this latest touch was new to him too.

And to the crowd as well. They pushed back toward the shops, trying to get away from the center of the street. In a moment I stood alone. Men and women struggled, pressing into the already crowded shops.

The Lancers came on. The chant faded. Standing there, even in my coverall uniform and cowl, I felt exposed as I waited for whatever was coming around the next corner. But an officer does not run.

The end of the Lancer column broke around the corner of a shop further down the alley. Young men in loincloths, perhaps a dozen, carrying short, stubby clubs. They lashed out at the crowd cowering in doorways.

Majumbdahr stood at my right. One of them laughed, struck a man in the side, hurled an oath at him and passed on. The Lancers in column were smiling too. A lark. A holiday afternoon, for them.

They saw us. Three broke out of file and converged on us, rocking the clubs loosely in their hands, casual.

I went back into rest position, left forearm out, right leg cocked back and keeping balance over my body center. Right arm tucked into side. Training school memories. Watch their faces, focus forward, eyes front but seeing everything to the sides.

The first one swung a club down with his right. I blocked with my forearm, dropping further back. He went slightly off balance. I raised my right knee, shot out a chopping foreleg kick. It caught him in the stomach. I dropped back to balance.

The kick wasn't strong enough. *Getting old.* He came forward again, this time favoring his right side where the kick had landed. Side chop with the club, very fast. I stepped back again, watching him move. The man had a sour, panicky smell. No opening worth the chance.

The third man stood aside, watching.

Majumbdahr was moving in the corner of my eye, try to wrestle his man to the ground. Mine came at

me again. This time he rushed matters a bit. His right foot came down too early for the overhead blow he'd planned.

I stepped forward, chopped his arm. I shot my left elbow into his face as he stumbled past me. He smacked hard on the obsidian cobblestones. He shook his head, too dazed to get up.

The third man cursed us and ran, hooting wildly. Majumbdahr had his pinned to the ground. I felt a little silly, a senior officer fighting in the streets. Were the civilians eyeing me curiously?

"Send for the police!" I shouted at one of them. Then I noticed the crumpled form further down the street.

It was a girl, unconscious. Her black hair fanned out in a crescent around her head and there was an ugly red patch on her scalp. I cradled her head to see if there were any other wounds. Someone came over and volunteered that the Lancers hadn't struck her; she must have fallen in the rush.

Police whined over in a helicopter and dropped into the street on ladders; evidently ground transport through the reconstructed district was too slow. I held the girl's head and ignored the two Lancers who were led away. She was injured in a stupid, pointless demonstration—if that was the right name—and I felt responsible. If I'd pressed Gharna about civil disturbances, I might've been working on the problem instead of sight-seeing in town. And this was just the sort of thing that reeked, disquietingly, of the Quarn.

It had the feel of strangeness, of people going off their precarious

balance. The Hindic peoples were always pacifists. We even had trouble recruiting Fleet base personnel on Veden. A group like the Lancers was totally at variance with the traditions here. Yet they *were* here, and the crowds had smiled, perhaps even identified with them. Why? Did the Lancers express something they all wanted to say, but couldn't?

Someone was tapping me on the shoulder. I looked up into Majumbdahr's face and at once realized that I didn't want to let her go.

"Medical is here, sir," he said. "They'll be wanting . . ."

"Tell them . . . tell them to treat her and deliver her to my personal home," I said without thinking. "I want to talk to her." I looked down and saw her for the first time. Black hair, delicate features. She smiled weakly at me.

I watched the ambulance pull away with her and recognized dimly that I was slowly coming out of the slight autohypnosis I'd given myself just before the fight. Training was reasserting itself. Majumbdahr finished talking to the head of the police squad and glanced at me.

"Come," I called, waving. "Let's lift."

## 5

Momentum is as momentum does. Thus, Fleet schedules wait for no man, even a puffing Commandant years beyond his martial arts drills. *L. S. Caton* was passing through the Flinger. I wanted to watch, to sense the flex and flow of my command.

Local police reported to me on the copter journey back: some Lancers detained, but they had no plausible explanation of why their ritual display eroded into brutality. I sent a priority demand for a summary of all such past incidents.

Veden Fleet Control wasn't all that impressive. Most of the Flinger's detection grid was in close orbit around Lekki-Jagen, where things became gaudy. Computers are the same faceless ferrite walls everywhere in the Empire. The large cavern of display screens, verbal inputs/outputs, primary and backup consoles, low-glare phosphors glowing a sullen red, clacking of tracer prints, mutter of conversations escaping from muffling mikes—the cavern was forgettable. Except for the display screen.

On the screen Lekki blazed eternal, whipped by Jagen's knotted fist of gravity. I watched a tiny glint of light that was the *L. S. Caton* creep across Lekki's blue snarling face, boosting faster than light. It arced around Jagen's black dot in a deformed parabola and raced away, a graceful and intricate dance of the spheres. Destination: Abbe IV, a fertile planet circling a G4 star over a hundred parsecs away.

The stars are fixed and eternal only for times slightly longer than a man's life. In reality those diamond-bright flecks are roaring through the galaxy, a mad swarm of bees. The galaxy itself has spun around twenty times since its birth, scrambling stars like seeds before the wind. Between Abbe IV and Earth—the *L. S. Caton's* home port—was a 154.6 km/sec velocity difference. It wasn't enough to wink

into Jump space and out again—somebody had to fork up the difference in kinetic energies (relative to galactic center) between the two. That means fuel, and time. Far cheaper, then, for the *L. S. Caton* to detour quickly through Jump space to Lekki-Jagen, undergo an elastic collision with the neutron star's field, picking up energy—and then Jump to Abbe IV. Spectacular and cheap—a twinning devoutly to be wished.

Aboard the *L. S. Caton*, of course, it was a nudge in the night. They had only minimal sensors outside their magnetic envelope, just enough to pick up navigation data from us—again, because it's cheap that way. Though the *L. S. Caton* was a mass of tachyons, the gravitational deformations of Jagen swung it around precisely like ordinary matter—gravity plays no favorites. There are, some say, stars and planets in Jump space; but no one has ever lingered near them. Some of the deeper physical laws seem asymmetric; tachyon galaxies may well be deadly to us.

Gharma, efficient and proper, showed me the Fleet procedures; I made notes for study later. "You know what we are, Mr. Gharma?" I said after an hour or two of detail work. "Brokers."

"Sir?"

"Look, stow that 'sir', Lapanthul, leastwise when we're alone."

"Ah, how do you mean, 'brokers'?"

"We're in-between men. Take an item from Mr. A, exact our percentage, and give it to Mr. B."

Gharma smiled. "This seems inglorious?"

I shrugged. "I don't care." And was surprised to find that, in truth, I didn't. Running Veden Control was grub work in the eyes of the likes of Tonji, but so what?

The scoop ships, gulping down interstellar hydrogen with a giant magnetic throat and spewing it out the end for propulsion, were the long-term backbone of the Empire, little publicized.

A planet that sent out, say, a rare alloy plentiful only in their system, couldn't program the ramscoop ship for a definite destination because by the time the ship spanned a hundred parsecs at sublight speeds, its target world might have changed economic structure entirely. The time lag was too great.

So the volume of space around Lekki-Jagen served as a storage area, a cosmic clearing house of the Empire. Moving large masses through Jump space was beyond the resources of a new colony planet. But ramscoops were cheap and easy to build. When the colony got a product it thought might sell—and so bring in currency and bartered goods in return—it packed a shipment into a ramscoop and programmed the onboard computer for Lekki-Jagen. When the ramscoop arrived a half century later, it was cataloged and directed into a waiting orbit.

There it sat. If no other colony bid for it, the ramscoop orbited silently forever, costing its owners periodic docking fees to pay for Veden's Fleet Control. Usually it sold rather soon. Then it was reprogrammed for the buyer's system, dropped through the Flinger and shot out into deep space at a re-

spectable velocity. The Flinger could cut fifty per cent off the transit time of a fifty-parsec journey, because without it the scoops required long, weary, expensive years to pick up their initial velocity. The Flinger cut down the transport time for interstellar commerce, making possible the economic Empire.

Thus I was—quite literally—master of a million ships. They were all ramscoops forming a great pancake of orbits in the plane of the ecliptic. Virtually every day we received bids for certain ships—lately, I noted, ones packed with a craftsman's lifework in microelectronics—and, if it met the demand of the seller, I ordered it dropped through the Flinger. The key point was that a ramscoop expended great energy if it had to reach one per cent of  $c$ , but the ride was easy after that. Above this critical velocity, enough hydrogen isotopes crammed into its maw to feed the fusion fires in its belly; it then quickly boosted to 0.8  $c$  or higher. The Flinger slung scoops out at around 0.0  $c$ , and saved the Empire a fortune on each launch.

"How long is this going to last, Lapanthul?"

"Pardon, Director?" (Since I'd ruled out 'sir', he'd found a substitute.)

"Jagen is spiraling into Lekki."

"Yes."

"When do they touch?"

"Several thousand more years, at least."

"It seems odd that we—the human race—would come along at precisely the right moment to make use of this resource."

Gharma laid his head onto a shoulder, the Veden gesture of acceptance. "Director, 'Each fresh day is a special case.' A saying from our rituals."

"Um."

"Man is a fortunate being."

"Uh huh."

\* \* \*

When I reached home that evening, the orange luster of dusk was settling across the water. Flittering sounds of things in flight echoed from the lake. Spindly ferns clothed my home in brooding quiet. I remembered the assassin, then dismissed the thought. As I walked up the front ramp, I noticed a mark on the glass wall of the den, and beneath it a white bird lay sprawled in death on the patio. It was larger than a dove and had delicate striations of blue and pink over its neck. Evidently it had failed to see the glass and had flown straight into it, breaking its back.

Patil admitted me and announced that dinner would be ready shortly. He mentioned the girl and I asked for her.

She came into the den, padding softly on the thick rug. She was tall, a trifle thin, and wore a sansari of rough, durable green weave that set off her black hair.

"I thought I would ask you a few questions about the incident this afternoon," I said, my voice curiously stiff. She nodded. "Your name?"

"Rhandra Minadras of the family Talin."

"Why were you in the street? Were you shopping?"

"No, I was searching employment. I was reared in the country, in agricultural arts. But recently I decided to come to Kalic and attempt something new. I thought the traditional shops would want unskilled labor." She spoke quickly but not with a sharp tone, and looked down at her feet occasionally.

"You know the Lancers?"

She hesitated, shy. Then she looked up at me and, seeing that I was not intent on grilling her—as, doubtless, the police had; I should've thought of that—some of the spirit that twinkled behind her dark, restless eyes came forth.

"I've heard of them, met a few. They say their 'demonstrations' are just sport, but I think not!"

"Why?"

"They're afraid. Afraid of the Quarn and what might happen if they reach Veden."

"Strange, for the young to fear so much."

"Oh, no," Rhandra said, looking up in surprise, unselfconscious now, eyes widened, "they are the least in phase. They have not yet come to compromise with the strains of adolescence, or cultivated the old ways. I wouldn't expect them to be as secure as an older man."

"Perhaps," I said, uncomfortably aware that I was an older man and felt blessed little inner peace of late. "There was never anything like them before, was there?"

She shook her head, liquid hair rippling. "Not that I've heard. But I'm new to Kalic."

Patil entered and announced dinner. I stood and felt a sudden twinge of soreness in my back, a reminder of the scuffle. "New?

You have no lodging, then? Stay in my guest room until you find something suitable."

She made the usual gestures of refusal, but eventually accepted. It was clear she had few plans. My reasons for making the offer were equally vague; I was attracted to her by some elusive chemistry not merely sexual.

Rhandra excused herself for a moment to change into more formal dress. She appeared a moment later in something clinging, and walked over to the glass wall overlooking the patio. She stood looking at the mist drift in from the lake.

Suddenly a large bird dropped down from the ferns on wide, powerful wings and glided by parallel to the house, peering in at us with electric yellow eyes. She jumped back, startled, and thumped against a wooden column. She gasped and abruptly began crying uncontrollably. I hesitated, awkward. Then I held her, comforted her. The sound she made, butting into the massive unyielding wood, reminded me of a bird smashing into a glass wall.

6

It did not happen that evening, or the one thereafter, but there was a glacial momentum to the event that gradually made the expectation of it fill the air between us, like a thin fog through which we spoke. Once we recognized it, there was an odd tingling moment when we mutually agreed to burn away the mist and when it was done, we could say the things we'd both been thinking and our false uniforms—mine particu-



larly bulky—fell away. It was amazing, a revelation, to act without thinking, to find that my old body, with its calluses, wrinkles, bony knobs and suet softening, aging now—the first signs were obvious—could be fun again. In this there lay a betrayal of the spirit I felt the last nights on Earth, a dismissal of the smooth and solemn couplings Angela and I shared.

There is a moment, in each life, I suppose, when you have passed your catechism and are free at last to believe or disbelieve—it is only parents or society or God knows who else who Make The Rules—and discover life once more, fresh, on your own. So I did. She made my body like a bauble again, a toy, a joy. No one had done that for me since Angela, a very long time.

Nobody. Perhaps this is merely a confession that there are few great loves in a life (virtually all of us can make that confession, sad to say).

Or perhaps it was the way Rhandra would look at me. (Kneeling on my bed in a moist tangle of sheets, arms at her side in the wash of yellow morning light, hands stretching as she awakened.) It was a look that opened up some new perspective for me, a fresh continent hanging in the air. It was the first time these doors had opened for her. (I know, there must've been a farmboy somewhere, and—upon asking her—it turned out there was. Or rather, several. But the difference was one of kind.) She and I explored these lands together, using the traditional tools—a lusty, seemingly accidental liking for the same things, plus workable instincts and

the familiar gummy organs, full of their own self-wisdom. It filled me, drained nothing. No life-swallowing obsession, this: I worked, Rhandra found weaving and other crafts she'd always wanted to try, and life went on. A Commandant is allowed some latitude, socially (thus Jamilla, that first night). I used it. So in those first weeks I reworked myself, under our mutual alchemy, making a sagging bag of bones and brain and guts into a new instrument.

## 7

Fleet is a political organism. It needs support among all client worlds. A traditional function of my position was to solidify such support.

"You may be especially interested in this, sir," Gharma said blandly one morning, laying an engraved card on my bare desk. "It is an invitation from the First Bridge Society."

"First Bridge? Odd name."

"A very exclusive private club, Commandant. The original ram-scoop that colonized Veden had a strict discipline system. Highest-ranking officers were from the first level of the flight-control bridge. The navigators. The club carries now the same connotation." He lowered his eyes. "The previous Commandant was a member."

Ah. This was the first tentative feeler for the sort of social acquaintances a Director and Commandant was expected to make among the natives.

"Decline it," I said, and cut off

his startled reply. "I'm not interested."

"Sir, it is virtually a tradition."

"Here's where it stops being one."

Majumbdahr, standing nearby, permitted himself a hint of a smile. And later implied, with a side comment, that the First Bridge types were dreadful bores.

But I did attend a few handshaking fests, in part because Rhandra was a more outgoing creature than me and wanted to see the mysterious struttings of Kalic society. She even persuaded me to spend half a day at the Temple of the Madi, one of the more revered centers.

The Madi turned out to be a heavy woman, her lips a glaring red gash among swelling hills of cheek caked with lemony powder. Her first salutation, "Director Sanjen, this is quite unexpected—" ignored the simple fact that, were I unexpected, she wouldn't be there in ample robes to greet me. Their temple was imposing, a large dome like a sprouting bulb frozen as it popped from the ground. We entered beneath a sloping parabola of grained obsidian, which in turn served as fulcrum for an arc that spanned the lofty pink.

After much talk of Kundalini, the vital serpent, the Madi took us on a tour of the schools. There were earnest lectures on conservation of the vital fluids; attempts to revive the lost Old India art of levitation; men who could pop steel bands wrapped around their chests; men who, it was advertised, could through will power and proper body control, raise the temperature of a room five degrees—or lower it; people who

spoke to hallucinations; men who lived, though buried alive for hours; women who whispered to tumbling copper balls and beads and made them leap and dance; a first-order Yogi who could stop his heart for two minutes; walkers on water. Some feats were startling, others looked like sly amateur magic. The more fantastic were not as advertised—the water-walker was getting better at it and had performed for small select groups of believers before, but, uh, found his spiritual essence hampered by the presence of doubters.

More to pass the time than anything else, I asked the Madi, "You believe Yoga can counter loss of phase?"

"Perhaps, in time." She waved a silken handkerchief at the gnarled man, who was now beginning the ritual again. "But that is surely not the point. These things must be realized with the heart and spirit, not merely with the mind. It may take you a while to come to such knowledge." She made a pause. "Certainly, Director, we shall be prepared to help you."

"Ah. Quite."

"The Benagatham is more than you might assume," she said, smiling, "coming as you do from the . . . Monguls. We are an ageless movement. The original faith of the ancient Asia. Not the deformed faith you have known, Director. The *difficulties* I hear you and your comrades are finding with those aliens, the, the—"

"Quarn."

"Yes, Quarn. I think it is simply a matter of the wrong spiritual avenue."

"Um. Perhaps."

Rhandra and I lifted off into a brimming violet Lekki sunset, skipping the evening feast at the Temple and sundry other consolations of public religion.

"You told me this would be a look at the faiths of Veden," I said to her in an accusing tone.

"Uh . . . yes."

"It was terrible."

"Right," she said with a shrug of her shoulders, her wry smile apologizing for her countrymen.

The sects in the dome were fairly recent offshoots of the traditional Hindic religious line. Their absorption in the cheap tricks of Yogi, in the pseudo-rationalization by which the beautiful parable of Kundalini's passage had been debased into exercises of the stomach muscles, and all the rest—it was a falling back into the dark past, reliance on graven images and Gods, an abandonment of the peace and serenity of the Hindic society.

They didn't know it, but these cults and the Lancers were symptoms. Hindic Veden was decaying.

Because of the Quam? Possibly. When the disease is unknown, any symptom may be important.

But perhaps Veden was simply going bad at the core, like the Empire itself.

Fleet Control had an efficient rumor-mongering service and its results were duly logged into remote readout storage for use by the Director.

Most of the information was worthless. But some reports spoke of a rise in crimes of violence that were hushed up by the close-knit

Hindic family structure; the sudden influx of mentally disturbed cases in medical centers; a pattern of breakdown in the rural areas that caused the young to move into the cities.

I peered out the plastiform bubble over our skimmer and watched lights wink on, bright sentinels against the reddening dusk. In the west of Kalic, the inexpensive homes, families were performing their ritual chants for solidarity before the serving of the evening meal. Properly rendered, it brought contentment and security without the dullness of orthodoxy or the weight of dogma.

Without something—rituals, the Sabal Game, wise ministering of the guru—a man could slide into the weak fragmentation of the Plague. So went the conventional wisdom. Solidarity through ritual. Man's mind divided into three separate houses—reptilian, lower animal, and cerebral cortex. Society had to govern each; the history of Earth had proven as much. Otherwise, there would be massive loss of phase. As I had lost it.

Order was breaking down. Must empires always fall? Was there some fatal mechanism in man that hated permanence?

I shook my head, raging against the night. Rhandra sat brooding in the seat next to me, her hair like rippling shadows. She had been disturbed by the Temple of Shiva as well. She came from simple rural origins and was breaking away, but it was clear the contorted Yogi was not her answer.

I laughed inwardly to myself. Poor thing, she was just as confused as I. I reached over and held her

hand and she smiled shyly at me in the darkness.

We landed near my home, on a flat pad settled into the hill. Patil was waiting there with a message which had just been forwarded by the watch at Fleet Control.

Quarn had been sighted near Calning, the large colony only fifty-three lights from Lekki. A scouting party was observed and fled into Jump space.

It might be a preliminary for an attack on Calning. And it might not. The aliens had made feints before.

But it did mean something. The Quarn were striking further into the Empire's shrinking sphere.

The sickness was worst at the contact points like Regeln. It spread along the Jump ship lanes, as I had guessed before.

A ripple, its amplitude decreasing. But spreading, always spreading.

Angela, Chark, Romana—

I saw them suddenly, mired in quicksand, reaching out, silent and beseeching, mouths awry—

They were secondary cases. They had gotten it from contact with humans, not through the Quarn. They would take much longer. If indeed, I had left them only to die . . .

I wrenched my thoughts away.

And here . . .

Veden, storage house. A link of the Empire, where Fleet served as accountant for the Member Worlds. Unexciting but vital.

How could I protect against something as patternless as entropy itself?

We wouldn't be safe much longer.

## PART IV

### I

So the days tumbled down. The worst times were the mornings, when I would rise with a dizzy reeling in my head. Nothing seemed to cure it. Inserting my shielding contacts filmed Veden in shimmering light and invariably lifted my spirits, but often only Rhandra's massaging of my neck muscles would steal the tension from me. When first I arose, I sensed a humming in the room, and several times dumbly pawed about the draperies, seeking its source, until logic penetrated and I realized it came from inside my head.

Rhandra would follow my wanderings, dimples riding on the crest of her smile, and coax the first bit of breakfast lychee or somosha into me. She had a ritual joke: only the devotees of a small sect, the Falaquin, still practiced the ancient inponderable rite of ingesting natural alcohols, of the sort used before mankind knew how to remove the hangover-inducing effects—was I attempting to enter the Falaquin Orders? And I would smile and shake my head and mutter that no, I'd been sipping no ancient mystifiers on the side, this was probably some adjustment to Veden that needed to run its course. Biospheres are never alike; Veden was not Earth. Centuries of terraforming had still left many differences, from a pink pollen that made my ears itch to an hypnotic fernweed that I had to avoid.

One particular day when my morning revival waxed long,

Rhandra tugged me out of my routine and down to a sprawling arm of Old Kalic. It had been the navel of the continent, Baslin, in the first century of terraforming and colonization. It reeked of ancient ways, a Babylon. Sumer and Nineveh crouched along a mud-streaked river. Even at early hours the streets were a jumble of rickshaws, herds of panting water buffalo, camels straining under huge bundles, cows meandering. A gang of cortically augmented elephants shuffled in the dust, doing road work without human supervision. Along the river Brahmins and Sadhus and Hindics on pilgrimage were bathing in the river, wringing water from their oiled hair, praying rhythmically, brushing their teeth, doing Yoga exercises. Votaries danced, clacking. Temples lined the narrow twisting streets that smoked with dust.

Rhandra and I took a creaky, shallow-bottomed boat along the river, hired from a brown man who scowled at us and flashed, when he thought we didn't see, angry white teeth. We glided silently. Corpses were being washed and put into the cremation flames, licking thick plumes of smoke rising from the pyres. Dogs and ravens poked at the charred remains.

Effective visions, yes. Yet I knew teams plucked the bodies from the river downstream, cleaned the burning grounds, sprayed the area nightly. The animals were treated, freed of disease. All this, to blend the ancient with the present. There were sound sociometric calculations for each nuance.

I pointed to clotted crowds on the

far shore. "Big group."

"A savant," Rhandra murmured.

"Let's go."

She frowned, studying the center of the crowd. "I think not . . ."

"Why? I'm interested." I threw the tiller over and we swerved sidewise in the current.

"No. Really, don't."

"I'll only be a moment."

We ran aground. I stepped off into the brown water. Pulled the boat up. Squished ashore.

"Ling, come back."

"Nonsense. Majumbdahr is always urging me to see more of—" I said, turning, and was staring into the face of a big meaty man, centimeters away.

"I have come to learn," I said.

"You are not allowed."

"Come, fellow." I started to walk around him. He blocked my way.

A Commandant should always have respect for the ways of the world he defends. Still, something in this man's manner irritated me. There was something here I sought.

"I came only to see," I said mildly.

He didn't bother to reply. He simply shoved me.

"Now . . ." I held up a hand. He pushed me again.

I began to get angry. But he was a big man and he seemed fanatically intent, his eyes flinty black darting insects.

I backed away. By all rights I could walk anywhere on Veden, as Fleet Commandant. But while training teaches you the rules, experience teaches the exceptions. I took Rhandra by the arm and waded back to the boat.

The man stood stolidly at the shoreline, watching us pole out of sight. His riveting attention pricked at my intuition; I tried to see who was discoursing at the center of the crowd. The distance was too far.

I could make out a murmuring voice, but no more.

## 2

Imagine a river: flecked with foam, swirling and rushing, collector of oddments of debris, bits of dirt, crumbs of civilization.

The Empire is thus. The random currents deposited their burden on Veden and departed, in each instant changing.

The Jump ships, however much glamor is theirs, were only a fraction of the traffic that passed through the Flinger.

Most of the Jump ships were engines of war. Merchants used the more modest ramscoops since they aren't supported by taxes from hundreds of worlds.

Fleet Control dropped them through the Flinger at an average rate of one a day. As well, one incoming scoop per day had to be laser-guided through the last stages of deceleration and coaxed into a stable ellipse.

That represents a numbing flux of information. I had to oversee a lot of it, make decisions about anything out of the ordinary.

Although the scoops and Jump ships slingshotted regularly through the Flinger, very few of them ever sent anything down to Veden. There was no reason. Veden had few rare raw materials, no advanced technology, few cultural objects of

interest to the predominantly Mongul Empire. We usually got a squirt of news or correspondence on high-frequency laser, and that was it. Usually.

"What's this?" I asked Gharma one day. "The *Chennung*, Jump Class IV, is dropping a one-man flyer."

"A moment," he said, thumbing a readout. "Yes. A replacement for the astronomical observatory."

"Observatory? Where?"

"On the other side of Veden."

"There're only a few islands there."

"Correct," Gharma murmured pedantically. "They have fewer signal/noise ratio troubles if they are shielded from us here."

"Ah." I approved it and tapped it through to store-and-forward.

"What're they watching? Optical work?"

"No. Gravitational radiation."

"Uh? Why?"

"Lekki-Jagen."

Radio waves are generated by electrons jiggling back and forth in a wire. Two masses, waltzing about each other, make gravitational waves at the frequency of their revolution.

"The signal from Lekki-Jagen is big enough to measure?" I said wonderingly. "Incredible."

"Gravitational radiation is an important energy loss. Eventually they will spiral into each other because of it." Gharma blinked at me owlishly.

"How old was the astronomer who recently retired?"

Gharma checked his readout. "The man died at age 124."

"Impressive. I'd heard you live

longer here, because of the lighter gravity."

"There are other causes for our good health," Gharma murmured with a slight smile.

I chuckled. "What you really mean is that the helter-skelter of the Empire doesn't penetrate here, eh? And you're right. The social pressure-cooker on Earth probably cuts a decade or two from our lifespan. Maybe that accounts also for the higher spiritual state you Vedens have achieved."

Gharma's smile changed a fraction as he saw that my words carried a touch of mocking. "That should be better judged by an outsider." He said judiciously.

"Mere cliché sociology, I'm afraid. On Earth our introduction to the Sabal Game comes only after age twenty-five. Below that age physiology makes meditation and group perception difficult."

"So that longevity assures enlightenment?" he asked somewhat stiffly. "But so many decades of playing a . . . game . . . does not boredom set in?"

"No. No." Sudden sense of loss. I glanced at Gharma. "I don't believe it was boredom that drove me out."

Gharma muttered something, perhaps embarrassed that he had triggered a sadness within me.

"I wonder—is Veden so different? Are there different paths open to me here? I—" I broke it off, voice suddenly thick, and waved Gharma away. I thought for a while, my mind a muddle, and then pulled myself back into the workaday world around me.

I leaned back and regarded the

display screens. Again the idea swam up to consciousness—why had we come along at this special time? This singular moment when Lekki-Jagen made an efficient Flinger, but before gravitational radiation bled them of energy and the two smashed together?

There is a rule in astronomy, the Principle of Mediocrity. It says that our position in both space and time is more likely to be average than special—simply because, unless there is evidence to the contrary, more intelligent races will be born in average, mild conditions. There's an escape hatch, of course: the fact that we're here when the universe is about eighteen billion years old is caused by the time necessary to evolve intelligent life—roughly, ten or twenty billion years, and what's a billion between friends? Still, the principle made me stop and wonder. The Flinger was almost too good to be true, a gold mine for the Empire. What were the chances that we'd blunder onto it and find a planet we could terraform nearby? Or were we like summer hikers in the forest, coming upon a feast picnic lunch all laid out, glasses brimming with sweet lemonade, but no picnickers?

I shrugged. Things happen, that's all.

\* \* \*

One morning, amid the buzzing in my head, I found faint memories of a dream. Of Angela, of the children, of the Slots. Were they there now? In the dream I walked down slimy halls with yellow gobbets streaking the walls. People were stacked like so many lumps of or-

ganic goo, to be tended and noted and, when they died, disposed of.

When I found them, there were three holes together, each barely large enough to crawl in and crouch. I ran away.

It isn't sleep that knits the raveled sleeve of care. It's work.

\* \* \*

I set up regular training classes for the troops in riot control and internal security. The men responded well, glad to be acting again, but troubled (I suspected) at this first evidence of concern among Fleet Control.

Jagen, the Black Dwarf, spun in tune. Veden was subject to a biennial coincidence between Lekki, Jagen and its moon; an enormous tide rose and smashed itself against the lowlands. Winds roared and Fleet Control buttoned up for three days. We evacuated a few thousand persons from the mountain peaks in the east of Baslin, where the gusts battered at three hundred clicks per hour.

Over the next few months I received more reports of theft and beatings in the cities. Majumbdahr managed to penetrate some of the natural Hindic reserve in local officialdom against reporting such incidents, and thereafter we got a reasonably accurate picture of what was happening. The curve for small, random, purposeless crime had a steep positive slope.

The rumor-mongering facility picked up more whispers about Quam spies, planned Quam landings, suspected neighbors, sightings of strange ships in the skies.

Domestic issues came and went.

Majumbdahr and Gharma handled them. I kept myself isolated, romped with Rhandra, seldom attended official functions. The Madi called, sent invitations, implored me to visit the Temple of Shiva again, to follow the lessons they offered, to come to banquets and receptions. I was invited to join social clubs, attend concerts, clasp the moist palms of a hundred strangers.

"If you don't want to go, ignore them," Rhandra said innocently, batting aside five centuries of Fleet tradition.

So I did.

Instead, we walked the streets of Kalic. I joshed with Krishna priests in yellow dhotis and shaved heads, able to see it all as social cement now, free at last of what the Game had meant to me.

We flew through valleys crystalline with the sparkle of fresh rain, swooped over the leafy roof of jungle. We peered over the raw rock margin at the lowlands. They shimmered as though in mire, three kilometers down from the great mesa of Baslin. There were legendary beasts there, giants who sucked in the thick air and broke men like eggs.

In the jungle we surprised something and, rather than retreat, followed the sounds of its thrashing. It was a scorpion, two meters long with a curled stinger like a deer horn. It could run as fast as a horse. I shot to the side of it three times and then had to put a bolt into the scampering legs. Rhandra took a long time getting to sleep that evening.

\* \* \*



And always at my back, like a murmur in the distance you can't resolve into coherent words, were the Quarn.

They were deft. When Fleet computers war-gamed a probable assault on a given star, dozens of ships would mass and wait. The Quarn hit elsewhere.

The solution seemed obvious: the vast computer minds were operating on false premises. They thought in terms of feints and shifts, subtle balances of power and advantage. They assigned points to men and ships, solved endless integral equations to assess the economic implications of a given loss.

Clearly, the Quarn did not think that way. The sickness spread along the most-traveled Jump lanes, but it also struck isolated worlds. Could a few Quarn infiltrate such planets and have a determining effect?

They were near now. Four months after the sortie against Calning the same scenario I had seen on Regeln went through its grinding logic again. Communication winked out.

By now Fleet sent no expeditions to rescue survivors. They had learned enough, I suppose. Over the next few months two more colonies fell in much the same manner.

Fleet subspace transmissions mentioned them a few times, at first with alarm and then subtly skirting the issue. Then they were gone. We were advised to not speak of these planets again.

In Fleet engagements two of our Jump ships were lost to unknown causes. They simply vanished, ceased transmission.

Four Quarn ships were observed

to self-destruct to avoid capture.

After all this time we still knew next to nothing about the Quarn. Analysis showed that they had a tolerance to acceleration about the same as men—assuming the ships were not automatic. They reacted occasionally to laser signals tuned to infrared frequencies. Their ships bore no distinguishable markings.

Somehow this gradually diffused into the Veden population. The informant network picked it up as rumors, then as commonly accepted knowledge. There were a few incidents of arson and ridicule of police. Political parties that had been dormant formed again. Vegetarian cults, merchants' parties, groups in favor of breaking free of the Empire; they gained members and published newsfax.

The prominent parties demanded to know what defenses had been readied for use against the Quarn. When I first heard this, I laughed—did they think anything would stop the Quarn?

But gestures were necessary. I sent more sensors out on long orbit to the edge of the Lekki-Jagen solar system. The few thermonuclear warheads I had were readied and encased in shells with high-power ionic boosters. I saturated the volume of space around Veden with close-orbiting scoopships waiting to be purchased; they would provide a good screen for orbiting missiles.

Still, I could only hope to stop a few Quarn ships.

The Regeln pattern, though, called for no formal invasion at all. The colonists on Regeln had been disarmed by the Plague. Their defenses had done them no good.

I brooded. Things went on as before, I buried myself in routine. Was it deceptive? The chants of the priests sang in my mind, lulled me.

Two months later the first Plague case was diagnosed on Veden. It was a man in Kalic of weak religious background and few family ties. He did not respond to treatment.

3

Rhandra, at my feet—with the sweet, silent rhetoric of her deep eyes—and Majumbdahr, both regarded me quizzically.

"Ling, what you're saying is, well, interesting . . ." she began, "but I don't see the point."

"Why?"

"Societies like this, ours—" with an arm she swept in all Veden outside our living room—"this is the way they *are*."

"And always have been?" I prompted.

"Yes," she said. "That's why we have such links to the past."

"Even though we're parsecs removed from Old India."

"I agree with her, Commandant."

"Call me Ling; this isn't working hours. But Rhandra, how do you think we got here?"

"Ramscoops," she said confidently.

"Innovation. Generally, human societies aren't responsive to new ideas. They're hierarchical and ritualistic—like Veden. But every so often the neocortex takes over and rides the horse of, well, progress."

"Progress is an illusion," Majumbdahr said quietly.

"Spiritually, maybe so," I said impatiently. "But there *are* things we know. That the oldest part of our forebrains have elements in common with the reptiles. That above the reptile portion lies a limbic system, where our emotions are primarily lodged. And spreading over all that like a capstone is the neocortex. Three brains at war in one skull."

"Why in conflict?" Rhandra murmured. She curled delicate feet under her, into the soft piles of the rug.

"Evolution proceeds by addition," Majumbdahr said to her, somewhat diffidently, I thought—because she was the Commandant's woman?

"Ritualistic and hierarchical, we are, yes. 'Each major step in brain evolution was superimposed on the older brain, which probably didn't like the idea.'"

"I still don't understand what that has to do with right- and left-handedness," Rhandra said.

"Our intuition seems lodged in the right hemisphere of the brain," I said. "Verbal and mathematical ability is in the left hemisphere. But the left hemisphere controls the right hand—which is why most humans are right-handed. A lot of mental illnesses—not loss of Phase, the more drastic ones, like schizophrenia—are caused by dominance of the right hemisphere and lack of coordination between the two. We—"

"Ling," Rhandra said softly, "forgive me, but I do not think this is the most productive way to ease

into these things. They are not of the essence."

I grimaced at her. "What *is*?"

"You miss the Sabal, Ling. It is written all over your face at this moment."

I sighed, glanced up through the skylight. Veden's moon was mired in cloud, a gray ghost.

"Yes. Yes, I do." It sounded strangely like a confession of inadequacy.

"There remain spiritual avenues open to you . . . Ling," Majumbdahr murmured quietly.

I slapped my knee, stood up. "Yeah, I know. Let me be clasped to the bosom of Krishna, right?" I paced the room, whirled on them. "But we must first *understand*, damn it! These ideas aren't only mine—I got them from the research being done on the Plague victims on Earth. The Quarn seem to probe deep into those three warring brains, to reach back into that limbic system we have in common with the nonprimate mammals."

Majumbdahr spread his hands, a let's-be-reasonable gesture. "Then we must use our own wisdom to counter them. These facets—the tribrain, the left-right conflict—were resolved by Phase. That is its role."

"But it doesn't work."

"So far. Mankind is not finished."

"Ling," Rhandra said, "I believe your . . . disquiet . . . can be resolved by study of our ways here on Veden."

"They don't work, either. Read the reports."

Of late I had rummaged through Fleet retrieval codes in search of ideas about the Quarn, psychoanalyt-

ic research, anything. There were no solutions, only clues.

Quarn victims showed excesses of certain natural small brain proteins such as endorphins. One clearly repressed atropine, and we had known for centuries that atropine induced the illusion of flying. Did suppressing atropine, coupled with other reactions, induce fear of open places? So far the riddle was unsolved. More important, *how* was this done? The restrictions on human brain alteration which the Covenants laid down six centuries ago had blotted out our knowledge of such matters; now we needed it desperately. So I had begun to comb the files and make my own tinkertoy models, rummaging, searching . . .

"I believe Rhandra is correct, Ling," Majumbdahr said, pulling my attention back to the conversation. "There are some savants . . ." and he chimed in with Rhandra, both urging me gently, as friends do, to release some of the tension and dawning anxiety I felt.

"Maybe you're right," I said to them, suddenly tired. "I'll think about it."

I looked up. The moon had ripped its shroud and now swam free.

\* \* \*

The difference between a conviction and a prejudice is that you can explain a conviction without getting angry. This is a dead giveaway in negotiations; if your opponent flares his nostrils unconsciously before speaking, he probably isn't going to abide by any compromise settlement.

The case in point was the outer tribes, the jawarls. The people of Kalic termed them tribes because they followed a more martial Hindic tradition, practiced combat Yoga and invoked obscure, many-armed gods. The jawarls decided that Plague victims were a visitation of the evil Thingness, and this implied, as the night the day, that such people were better dead.

We first learned of these interesting opinions when three jawarl-blessed teams broke into a hospital, killed five Plague cases and a nurse, and barricaded themselves in a wing. The Kalic officials dithered. I moved up Fleet troops. The jawarls killed the remaining two Plague cases and pitched their ritually dissected bodies into the street. The Kalic officials were greatly offended and went away to meditate on a solution.

I had selected my men for their marksmanship, not their bravery; if you have enough of the former, you don't need the latter.

I left Gharma in charge of the front. I took some men around the back, thinking the jawarls might sneak out that way. The jawarls were hard fighters but I thought we could face them down.

We waited.

Firing came from the front. Small arms.

When I got there, jawarls lay around the hospital doors. Blood seeped from their blackened wounds.

"What happened?" I asked Gharma.

"They came out."

"You gave warning?"

"Some."



"Damn it, you were well concealed. You could've parleyed."

"They were armed. They ignored my first challenge."

"And the second?"

"I fired a warning bolt."

"Oh, neat. Very neat. So they panicked."

"The onus lies upon them," Gharna said stiffly.

"You should've been more careful."

"They were country men. They do not acknowledge your Fleet niceties."

"You made *damned* sure they wouldn't."

"I feel I was justified."

Majumbdahr approached and saw the carnage. He shook his head, his mouth a thin line.

I looked at Gharna. He knew full well that Fleet regs would uphold his decision. Behind his icy manner was a smug certainty.

I snorted wearily and turned away.

We lifted out in a twenty-copter force then, and caught the council of jawarl elders at their daily Dance of Self, their tea bowls still steaming. Such people are either at your throat or at your feet; this time the negotiations went well.

\* \* \*

That evening it came again.

I jerked awake. Rhandra nuzzled against my shoulder, a thigh atop mine. Outside the night was still.

The dream returned.

The chaplain came to her Slot. He was a hospital employee. He administered the last rites and rubber-stamped that fact on a card. The nurse closed Angela's eyes and

called the orderlies. He witnessed the temporary death certificate, filled in the Release of Personal Belongings form. The body was washed, plugged, trussed, wrapped in thin sheets—we are neat here—and labeled. At the morgue the attendant loaded the body onto his rolling stretcher, waited for an empty drop tube, and then took it to the morgue icebox in the basement: last transport for unwanted goods. The autopsy was brief; the machine found nothing unusual. I sat outside while she was drained, embalmed, waxed, rouged, shaved, dressed, made ready.

Two possible ends: a quick, crisp incineration, then bones into a ceremonial urn. Or, at vast expense, a precious rectangle of earth, a machine chuffing as it lowered her in.

Then the dead children, of course. More units passing from the Slots. Through the labyrinth. No metaphysical mystery, no call from the divine. By the time people had reached the close-packed Slots, you just let them go. The new ethics: Thou Shalt Not Kill, but thou may allow to die if . . .

I woke.

I rose, paced, sweated.

Rhandra stirred and then drifted back into sleep's gray peace. I moved ghostlike through the shadowed living room. Some of my familiar morning nausea howled in my head. I massaged my neck to clear my thoughts.

Rhandra or no, I was not quit of Angela. Did I still love her? Impossible to say. After a while emotions are like old shoes; you forget you have them on. Do dreams of death,

transposed, mean dreams of love? A question I had scribbled on my soul and could not now lightly rub out.

4

The copters buzzed all around us, ringing the area. I lumbered away from mine. A thick acrid stench of burning buildings drifted down the broad street. It seeped in through my suit filters.

Sirens wailed; they were coming this way.

"Majumbdahr!" I called. He came trotting over. "What happened to that sleeper gas?"

"Ordnance couldn't locate any more," he puffed. "They used the last of it an hour ago. It didn't stop them."

I ground my teeth. No time to have a batch made up; I wasn't even sure there was a chemist in Kalic who knew the process.

"Form up the men you have. They still carry anamorphine?"

"Yes, most of them." He nodded slowly, dazed with fatigue.

"Gharma said the Lancers were slowing down."

"I think they are," Majumbdahr said. He blinked rapidly to clear his vision. Smoke drifted across and paled Lekki's great eye. "They've been going for six hours. Our men are sagging, too."

"This should be the last of it, then, for a while," I said and saluted. Another copter decked with a whine behind me. Gharma jumped out.

"It's dying down elsewhere, sir," he reported.

"About time." I'd followed the riot from Fleet Control since morn-

ing until I couldn't stand to be inside any longer. It was good to be out in the field and get the taste of things.

Troops formed up in a line across the street. The muted bass of the crowd deepened.

"It's hard to understand," I said, looking at the thin column moving up. "Only a month since the first Plague victim."

"How does it go in most cases?" Gharma asked.

"All I know is what I saw on Earth," I said, trying to shrug in my suit. The constant-volume joints impaired me. "It wasn't anything like this. People simply waited. Sometimes they died. They didn't turn out into the streets, burn and loot."

"They had more phase, on Earth?"

"I don't know. I wouldn't have guessed it. There's something peculiar about the Veden personality. They seem to be coming out from under some inhibition at last and the pressure is blowing the top off."

"The old ways are not enough," Gharma said flatly.

"Why? Why should they fail now?"

"It is a crisis point," he said. "The order we had is lost."

I looked at him closely. Behind his plastiform face-shield his skin was polished walnut. "You say that? You, believer in formalized religion?"

"Formalized, yes. Perhaps dead as well. When something is finished, you cast it aside. We need a new social ordering here, a new dedication."

Two blocks down the mob swept

around a corner and flowed into the street. Tinkling of glass. Rough-edged cry of frustration.

I glanced at Gharma. What did he mean? How could he watch his world dissolve so calmly? He looked content. Almost smug.

The mob streamed toward us. I licked away a salty tang of sweat. My contact filters stung my eyelids when I blinked; I'd been wearing them too much, indoors and out.

I could feel the hollow drumming of a thousand running feet. Fifty meters in front of me the mob bore down on the line of troops. Most of the Lancers seemed young. They grinned.

When they were within a few meters of the line, my troops fired a volley of darts and some went down, drugged with anamorphine. A canister of homemade gas blossomed in our line and blew away.

Most of the crowd's rush halted but here and there they broke through. Our line wavered. Men fell.

The mob caught the smell of victory.

I suddenly realized I was exposed. A knot of Lancers dashed by me. Gharma was cut off to the left with a squad.

I unhooked my sidearm. Majumbdahr shouted orders over the suit radio that echoed in my helmet.

Three Lancers converged on me. I took ready position. One carried a chain wrapped around his wrist; no worry there. The other two had cobblestones from the old district and one flashed a knife. All relatively useless against body armor.

They came at me together in a rush.

I brought the tube of my gun down viciously, chopping the first Lancer's arm. The man dropped his knife with a gasp of pain.

I stepped to the left and took a blow on my back armor that rattled my teeth. The chain whipped around my helmet with a crash and partially obscured my field of vision.

I crouched and fired two darts. They made an angry splatting sound.

Thumb over to extra-strong anamorphine. Lancer moving in; focus on him. Fire. Miss. Fire again.

He caught it in the groin. Staggered away, collapsed.

One left, now. Turn—where is he?

A bottle bounced off my arm and shattered on the sidewalk.

I heard the whistle of the chain again. *Duck.*

It missed. He felt the wind, as my instructor used to say.

This time I caught the Lancer before he could back away. I cracked the gun tube across his kneecap. He almost fell on the bottle shards but managed to roll to one side.

I blinked sweat out of my eyes. Hot. People all around me. Expand attention out, watch for an attack.

A man appeared from nowhere and threw a cobblestone. It hit my solar plexus. My armor rang.

I thrust out with the gun tube. The Lancer brought a stick around and parried neatly. He backed away, glancing to the sides for support.

I raised the muzzle of the gun. He danced to the side at just the right instant and the dart whizzed

past him.

The Lancer threw his pipe and ran. I ducked, fired, missed again. He dodged behind Majumbdahr, who was coming to help me. The crowd was falling back. My troops let out a thin cheer and started to reform.

"You all right?" Majumbdahr panted.

"Sure," I grinned at him. "Those fellows can certainly be offensive, though, can't they?"

5

We met in a restaurant in Old Town. Majumbdahr and Gharma had shown surprise when I told them they'd find me there, but I was bored with the stiffness of my official offices, and after the riots I needed a quietness.

Men in severe robes milled around the entrance as I went in, chattering, comparing notes, pointing at the black fingers twining through the sky from still-smouldering fires.

Majumbdahr and Gharma were already there, waiting at a cloistered table in the back.

"You've recovered from the brawl, then?" Majumbdahr said as I sat down.

"Still hurts down my back," I said. "It'll be sore tomorrow. Stupid to get caught out like that. I should've been up in a copter. How about you two?"

Gharma lifted a steaming fork of food and made a face. "Elementary violence I can usually overcome. The hot Pindang Kol in this restaurant is trying to even the score."

"Pretty bad," Majumbdahr

agreed, putting down his fork. "I'm glad I wasn't very hungry." He looked up at me. "Order something for you, sir?"

"Later. I finished my report on the copter coming over here. I thought Old Town would relax me, restore some balance. I won't have the report transmitted to Fleet Central on Earth until I've had a chance to go over it again."

"It must be rather difficult to compose," Majumbdahr said.

I sighed. "Rather. It's not easy to admit you're losing control of the situation."

"Couldn't you . . . in the writing . . . soften the impact?" Gharma said. "Perhaps it's not building as swiftly as we think—"

"No. Half-truths are dangerous; sooner or later you might inadvertently tell the wrong half."

"I agree," Majumbdahr said, hunching down with his elbows on the table. "Fleet has the right to hear it all, straight."

"Especially since this form of the sickness is new," I added. "There has never been violence like this before. I've asked some psychers; they don't understand it. It is out of the pattern."

Gharma nodded, his face grim.

"How is the building going?" I said to Majumbdahr.

"On schedule. The hospital space can be supplied by preform construction units, easily deployed. The only holdup was in the blueprints."

"Blueprints for hospitals? I thought they were standard."

"I checked standing orders and then asked Central on Earth. They want us to build close-packed Slots."



I stared at him for a long moment. "I should've been told. What did you do?"

"Called in a civilian. Used ordinary hospital prints."

"Good. You're legally in the clear. Local commanders can make such changes, as long as there aren't too many of them."

Majumbdahr had sensed my mood well. I hated the cramped Slots and all the memories they brought back.

"I think it was a wise decision for several reasons," Gharma said. "The psychological impact on the people would be great."

"Yes," I said, "when you begin building those kind of Slots you've admitted it's over, you've given up."

"Well, I give up on the Pindang Kol," Gharma said, pushing his plate away. "I'll eat elsewhere."

He smiled wanly. The things we had left unspoken layered the air.

They knew as well as I that a judgement of incompetence against a Fleet Director—that is, me—would not neglect the Executive Officers immediately below him. If I went I might well take Majumbdahr and Gharma with me.

"Do you think we should stop the building of rural retreats, sir?" Majumbdahr said.

"No. Move as many as possible out of Kalic and into the retreats. You've said before"—I glanced at Gharma—"that Vedens are country folk. Maybe they'll snap out of it if we get enough out of the cities."

"Is there any correlation in the background of the rioters?" Gharma asked.

"No, none." I looked down at the table and felt a wave of defeat wash over me. "Some are from the city, others fresh of the forests. No religious similarities. Widely varying income levels and education. The only thing they have in common is that this morning they finally got fed up with it all and started burning or hitting a policeman or just running down the street."

"Berserkers," Majumbdahr rubbed his hands together, thinking.

"What?"

"Berserkers. In ancient times the natives of the Norse lands on Earth had a ritual way to break free of society. Small deviations from the conventional weren't permitted—" he smiled at Gharma—"but if the pressure got to be too much, a man could run berserk and no one bothered him. He could go mad until he felt ready to return to his life."

"You're implying that's what happened here today?" I said.

"Perhaps. I don't know. What set them off, why all at once?"

"It's not my field," I said, shaking my head. "Too much for one day."

Gharma: "Sir . . ."

"Yes?"

"There have been reports . . ."

"Of a new sect, the Lengen," Majumbdahr finished. "Gharma and I saw some mention of them in one of the surveys you ordered. We think you should see them."

"Look," I said, blinking wearily, "I've gotten blessed little help so far. There are a thousand cultists on every square block in this city. I seem to have met every one of

them. If there's nothing special—"

"Ah, I think there is," Gharma said seriously. "There is something strange—but you should see for yourself, sir."

"They maintain a compound on the border of the jungle, in the farm districts," Majumbdahr said.

I considered. I was tired, but underneath it I felt an odd unease, a need to act.

"I'll go." I glanced out a thin window nearby. "It will be good to escape Kalic, to get outdoors again . . . 'Outdoors'—a queer word, isn't it? Arrogant. As if the universe were defined by what lies outside the places where we live. . . . "Rambling, rambling, skittering on a high wire above the abyss. I jerked myself back to the present. "Dusk is falling. Should we be going now?"

"Yes, I'll go call a copter. One can pick us up a few blocks from here," Majumbdahr said.

"Delay a bit," Gharma said. "I thought I would check in with Control first, sir. I should stay in the city. It would probably be best if one of us was on duty in case—"

"Yes," I said. "Go with Majumbdahr and get an all-points report for me before we leave. I can review it in the copter. Majumbdahr and I will go out alone."

Majumbdahr got up, threw a few coins on the table. They rang softly in the still velvet closeness. Gharma rose, saluted a trifle formally, and followed Majumbdahr out.

This last gesture was typical of Gharma. Through these months the three of us had become friends, but I felt much closer to Majumbdahr. His spontaneity often broke

through the officer's crust. But in Gharma I still detected an undercurrent of reserve and cool assessment.

I decided to eat while I waited. The copter could wait. I would need the energy. And of course it was one way to demonstrate to my two executive officers that, friends or no, they would still wait at my leave.

I ordered the Pindang Kol and a biryani. Pindang Kol turned out to be a broth of cabbage and root vegetables, salty and thick. It was terrible.

\* \* \*

We swooped down into a blotch of pale orange light. The Lengen compound swam in a sea of black, humid jungle. Phosphors picked out forests of tents pitched for pilgrims, cooking-platform areas of rough stone, ricks for meditation. In the center billowed a yellow tent. We banked toward it and set down in a clearing beaten clean by foot traffic.

"How can you be sure we'll be granted an audience?" I shouted to Majumbdahr.

"I called ahead. They realize you have little time."

As we stepped off onto Veden soil still cooling from the heat of the day, a small man rushed out of the crowd gathered around our official copter.

"Director Sanjen!" he cried. "I have been sent to guide you to the Master." The man was dressed in cheap robes. Most of the people standing and watching were poor, farmer class, or had renounced material things to follow the Lengen. I nodded and we walked to the large tent. The crowd parted as

we approached. I couldn't help comparing this with the behavior of the mobs I'd faced earlier in the day.

The tent was more complex than it looked. A maze of rooms kept groups of pilgrims separated and allowed the priests, clad in deep blue robes, to move in and out without disturbing meditations and rituals.

We were ushered into a warm little hexagonal room bounded by rich folds of cloth. We sat lotus fashion before two place settings of many bowls, plates and tumblers. There were eating sticks from several cultures, lacquered spatulas and shallow canisters. I wondered what this was all about. The quietness stole into the center of my tenseness, though; I decided to wait it out.

Presently a low woodwind tone sounded in the still air.

A tall man walked slowly to the center of the room. His green robes covered him entirely with only a shadowed triangular slit for eyes and mouth. I could see nothing of his expression.

"Finally you come here." The voice was deep and rich with an odd inflection.

I pressed my hands together in greeting. "I—"

"Begin ritual. Silence. Attention."

He produced a bowl and began pouring a thin liquid into the cups before Majumbdahr and me. A priest appeared bearing foods that steamed in the cool night air.

We began preparing the food. It was to be ladled into the proper bowls, mixed in precise proportions, arranged and ordered.

After a few moments I noticed a

rhythm to the procession of plates and odors. Salt of fishes. Tang from ripe fruit. Rough feel of the broadcloth napkins.

It was warm and soothing. I relaxed and my senses flowed out. I looked down on myself as I floated in a corner of the tent. Feeling all, knowing nothing.

There was a sudden glaring light. I wept.

And I was there.

\* \* \*

Labels, you see, are meaningless. Worse, they're distracting.

Within a breath of time I focused on the exercises. My mind stilled. I did not think of how surprising this was, of how my present state resembled something I had known in the past but only achieved then by months of contemplation. I didn't consider any of these things. I simply was.

*... Let us regard the waters in their ways ...*

An hour passed, or perhaps a moment.

In pursuit  
Of infinity  
Lose the way  
Thus: serenity.

"First form," the Master said. "You see." He leaned toward me from his lotus position. Bells tinkled. "First ally the mind. Cannot find its own . . . outside." He made something like a laugh. "This is done by not thinking various things, one after another."

"Unconditional nature?" I asked.

"Part. Is only part. Beginning."

I sat. The world formed, clouded, spun away. After a time of absence

I returned to my place and focused once more on the eating ritual. Gradually it released its hold. I was coming back to the world.

But not the world I had left. Now I had a place within it.

*—Let the waters, in their ways—*

We moved away from the large tent, the Ashram, place of wisdom study. I walked slowly and felt the pleasant crunch of broken ground (glass?) beneath my feet. One thing at a time. Focus.

The Master, I noticed, was very tall. Seven feet, perhaps more. Low gravity? Focus, focus.

Majumbdahr and I lifted off and climbed swiftly. "You've made great progress, I believe, sir," he said.

I felt a comradeship with him. He had not reached this state but he had pointed the way. He was a very good friend. There would be others, too, who were close. Community.

We slipped through the winds toward Kalic: winking lights scattered jewels upon a rug. I thought of glass. A glass wall. A bird lying beside a glass wall.

## 6

Rhandra moved coquettishly on me, a smiling imp. The oils on our bodies gave every caress a tingling after-memory of sensation.

Her oiled muscles rippled, coaxing me. We both knew it was no use; I was finished for that morning, energies spent.

She made a sign, a joke. Crude country humor. I laughed.

A few feet away, beyond the glass patio partition, wingmice and a jawbird pecked at remains of

breakfast. We were lying on a broad cushion, she astride. Lekki had just peeped over the afterbeam of the house. I was glad I'd put in my contact filters. I winked at her. We had so much to say—

The phone chimed.

She lifted a leg and rolled off. I got up slowly, reluctant to leave. A button on the phone glowed red, emergency pattern, so I hurried.

"Good morning, sir," Gharma's voice, tense. "I've put Fleet Control on emergency alert status. A sensor drone has just registered two blips out of Jump space, unscheduled."

"How far?"

"Just beyond the edge of the planetary system. Doppler shows they're massing into Veden orbit, fast."

"Got a mass reading yet?"

"Yes, just came in. Usual ship size. Something else, too . . . well, I'll check that later. Could be a mistake. But the two ships come in clearly."

"I'll be there," I said.

I took my leave of Rhandra and masked my concern with irritation. Irritation at the stack of work that the sightings promised, at the delay, the stupidity of doing a job I didn't give a damn about when I wanted to be with Rhandra, to go back to the Lengen compound.

I took a copter to Fleet Control. Conversations trailed off into silence as I marched through the front offices. Everyone knew. The news was in the gossip mill by now.

It was much as Gharma had said. I watched the flickering readout from the mass detector silently.

"You have all the scoop orbits

logged into our ballistic programs, don't you?" I asked Majumbdahr.

"Of course."

"Start plotting intersection orbits for them. If those two ships keep coming, we can probably catch them in the backwash from the ramscoops."

"I don't think that would be wise, sir," Gharma pointed out. "The scoops won't start smoothly with merely the orbital velocities they have now. The intruders will have ample warning."

I looked steadily at him. "Okay. Use the scoop maneuvering rockets to alter their orbits and bring them in close to the bogies. Then blow them up."

"A fusion explosion?"

I nodded.

"It may work. I'll log it in."

I smiled at him wryly. "Don't worry about the expense. I'm sure Fleet will stand the cost of a few scoops."

"What are they, sir?" Majumbdahr asked.

"Quam."

For the next few hours I watched the small dots drop steadily in toward the Lekki-Jagen system. Normal Fleet operations continued; a few colonies bought raw materials, organ replacements, sophisticated technology or rare metals that they'd need a century from now; the appropriate ramscoops were cut out from the herd and dropped toward the Flinger. When they reached the rim of the system, the scoops would flare into star-bound white gems.

The computers spun silently, guiding and totaling the transactions of interstellar finance, transferring marks in one account to similar

squiggles in another. I waited, watched, pondered.

In the afternoon reports came in about small incidents in Kalic and the provincial cities; arson, random destruction. The hospitals were filling with Plague victims. The only good point the Slots had was that they were easy to build; decent facilities took longer. A Fleet communique arrived questioning the holdup in Slot construction; I told my staff to throw it away.

Fleet also bothered us for more news about the intruders. Any unusual maneuvers? Spectral distribution of torch? Any transmissions, attempts at contact?

I sent answers and some questions of my own. When were they going to send me some Jump ships? How many wings were within striking distance? What was my priority?

I got back equivocating long-winded replies. Even if they were Quam, two ships weren't all that many, were they? Fleet had numerous responsibilities, I must remember. Ships were available, yes, but only for verified Quam incursions. These were difficult times. Meanwhile, keep us informed.

"Gharma reporting, sir." His image appeared on a screen beside the main display in my command module. "I've been tracing down something I noticed earlier. We thought it was a mistake, but it holds up under several cross-checks of the equipment."

"Something on the mass detector?" I asked.

"Yes. It's coming in normal to the ecliptic plane. Under ordinary scanning operations it probably

wouldn't be noticed."

"What is it?"

"That's the problem," he said, and looked a little uncertain. "We get a strong signal, but the object is fairly far out. Or we think it is."

"Think?"

The main screen showed cross-hatching: readout from the detectors. The two intruders were clearly visible. Far above the ecliptic plane, almost off the screen, was a small fleck. It was rust-red and the computer-printed grid lines warped around it tightly.

"Appears to have high mass," I said.

"We estimate point seven solar masses," Gharma said. "But optically we can't find a thing out there. Personally, I think it's an error. The detectors are just barely able to pick it up. They could be off quite a bit on the mass."

"Doppler?"

"That's wrong, too. Very high, positive."

I shook my head. "Keep watching it. Let me know if anything changes. But don't waste time—I want to know what those other two are doing."

I didn't have long to wait. At 1700 hours they reversed torch and started slowing down. They skimmed along a path tantalizingly beyond reach of the ramscoops.

Were they taunting us, making fun of our defenses? I was sure they were Quam. An hour later the spectral data came through. There were bright lines from fusion torches, typically Quam. I squirted Fleet a report.

The report on yesterday's riots went with it, but I didn't wait

to get a reaction from the super-c channel. I had better things to do.

\* \* \*

Rhandra met me on the balcony of my house before I'd shucked free of the Fleet boots I still wore. I had spoken to her of the Master, and now I asked her to go with me.

She looked at me shyly. "I know him."

"Huh? How?" Focus.

"I have, for over a year."

"Why didn't you tell me?"

"It was not time. The Master asked me not to speak of it to you."

"He . . . ?" I stopped, confused.

"I was a convert. Many of us are."

"Us?"

"Majumbdahr. It was he who suggested I stay on with you. He knew better than I your inner nature."

"I gathered you were here of your own free will," I said.

"I am," Rhandra said in blank-faced surprise. "Oh, I am. Now. But then, I was uncertain. The Master had sent me to the city to observe, to study. When I fell in the street, and you found me, I was confused. The Lancers . . ."

"And Majumbdahr told you to stay on with me?"

"Yes. He knew of the Master and recognized me as a follower."

"Ah."

"No," she said, reaching out, "you mistake things. We hid nothing from you."

"Oh?"

"We did not think you ready. We waited until your nature seemed changed, away from the grim side

you showed us when you first arrived."

"What . . . what is the Master to you?"

"An answer. A partial answer, as all answers must be." She looked at me with a simple and open earnestness, so freely given I had to accept it. There was none of the coyness I saw when we played together, none of the selfless concentration when she worked at her weaving, none of the ordinary faces of Rhandra I had come to know. Any woman worth knowing has more facets to reflect the light than a gemstone, more than one can see in a lifetime.

She took my hand. "He is a man of the farms and the jungles, speaking of the times that surround us. He senses the unease in Veden."

"Don't we all."

"You are not angry that Majumbdahr and I waited? We wanted the rightful moment to come."

"But it was Gharna, as I recall, who first mentioned the Lengen."

"He is a follower as well."

"He is?"

"Why, yes."

"He seems rather a different sort, to me."

"We are all different, Ling, but the Way is the same."

I snorted. My face tightened at her jargon of enlightenment.

"Do you remember the day we boated on the river?" she asked softly, leaning beside me against the railings. Below us a wingfox scrambled among stones, searching for tidbits that might have fallen from the balcony.

"Vaguely. There was some incident."

"A follower of the Master rebuffed you. He knew me; that was done at my signal."

"Why?" I blurted, startled.

"The Master had told me it was not timeful for you to see him. It is his way." She paused. "I did not mean for the man to be so . . . rough."

I waved this point away. "No trouble. I had the sense to back down."

"Yes."

"Look—are many of my Fleet officers also followers of the Master?"

"Some, I believe. Not many are interested in the true roots of the spirit, Gharna says."

I sighed, suddenly tired. "Uh huh."

"You are . . . the anger has leached from you?"

What could I do? I reached out and drew her to me.

\* \* \*

We both saw the Master that evening. We thronged the gathering grounds beside the Ashram, amid hundreds awaiting an audience. A functionary spotted me and ushered us inside. The rooms of cloth were layered with the smell of wax and incense, and a smoky murmur filled the air from the crowds outside. Shortly we were led to the hexagonal room of the Master again, and we sat, and we learned.

Rhandra knew the rituals well. The Master was gentle, coaxing the responses where I faltered. Clicking of implements, flicker of candles.

The lights quickened. I felt a tingling, a humming. The pressure of the floor matting lessened. Lights

rippled, danced.

I was moving, moving, but . . . There were screens—metal? plastic?—flicking light at me.

Suddenly, no sound. No grainy pressure of floor mat on ankles. Lifting.

I dropped down the long smooth tube, a telescope. Rhandra swam with me, a warm molecular bed of cellular wisdom, receptive, and I saw that she was a shadowed inlet of rest, precisely what I needed when first we met. If there was an order in things, it was here.

And in such a harmony an *of-kaipan* could attain communion.

. . . waxy, thick air . . .

How does a man feel community and gain sense of phase when he knows he is despised? He cannot enter into the Sabal fully. He might think so, struggle a lifetime to convince himself. But the grip would not be sure.

The Plague was designed for the Mongul empire. It spread through the Game.

I saw now that I had always kept a part of myself separate. And the Plague had brushed by me. Something did not click, and though I suffered the loss of phase for a while, I recovered.

I escaped because I was a man distant from the center. Tonji . . . his ambition seemed to have protected him. Perhaps to him Sabal had been a mere formalism all along.

Angela and the children . . . they must've believed more than I. Were they now fallen?

I felt a sudden spurt of joy. I was free. I could be anything I wanted. My strainings to fit with the Mon-

guls had failed by some thin margin. A margin which saved me.

After a long and lofting time we returned, together.

The Master sat upright, the fall of his ruby robes outlining thin legs and knobby knees. There was a faint musty odor to him and a cowl hid his face. What sort of man was this, to lead me so well, to know what I was?

Long, delicate fingers in blue gloves plucked the implements from their stations and set them aside. "Nature satisfied," he said, deep bass. "Are many levels. One step, then two. Break"—he reached up and made a quick snapping motion—"then grows."

He cocked his head over to lie on his shoulder in the Hindic gesture of questioning. The air swarmed with leaping motes, dust cycloning in a cool draft. At the edge of my eyes the world shimmered, fresh.

"Let us regard the waters in their lapping, their rising, and be swallowed by them."

## 7

I was humming, skittering in a high new place, the world crackling with brimming energy.

When we left the Master, I surged forward through the crowds, alive to my own momentum. I called in to Fleet Control, using my copter phone. I saluted Majumbdahr warmly; there was no substantial news. "Sir . . ." he said, and I saw at once he knew what had happened, and that the old Ling was shucked away. "There is an invitation . . ." From the Madi, of course.

I decided to go.



We landed a bit roughly, spitting gravel to the side. The Madi hustled out of the mid-evening darkness. Lights winked from the Krishna dome looming above us.

"We are most honored to see you again," said the Madi. She fluttered busily.

Introductions. May I present? Yes. "Professor Jampul," the Madi said. A short, emaciated man with wrinkled crisp brown skin. Rhandra bowed with courtesy. I shook hands. Pleasantries flew like birds.

Others drifted into my field of vision, murmured something and spun away. I gathered that I was meeting people. Couldn't remember any names. I smiled, gave the right signs, and said forgettable things.

"The reception is only now beginning," the Madi said. Massive doors parted, people swirled like tidepools around us. Sandals clacked echoes beneath the domed egg ceiling far above. Jampul was at my elbow, murmuring. He was a pedant, a professor of languages; the sort of man who can see sin in syntax. "Languages?" I murmured.

"And sects. A most interesting subject," he said.

"You know the Lengen?"

"Yes, something of a mystery. Many priests and one leader, I gather."

"You haven't asked him here?"

Beside me the Madi shuffled. "We tried. He did not seem very interested. In fact, we were rebuffed."

Things winding a little slow for me. I need air.

"We would like a place to pre-

pare ourselves," I said. "It was a hectic journey."

"Ah, surely." Crowd parted, we went through.

Up a shadowed corridor. Thick aromas from kitchens nearby, muffled footsteps. Rhandra with me, Madi leading. "If you require servants—" No, shake head. Swish of curtain closing on departing rump of the Madi.

Whoosh, sit down. Head a little off tilt. Long day or something. Rhandra looking at me, puzzled.

Jump up, grab her. Thrash around. Eek, tip over urn. Mad pawing. Bang into chair, laughing wildly. Sloppy kisses. Imitation of enraged ape. Shuffle around room, chasing her. She laughs. She scampers away amid the thick folds of air that fill the room, smoke-dense. We blunder into a bowl of sweetmeats. Both of us fall on them, smacking lips. Pop down four at a go. Hungry. Meditation takes a lot out of a man. Needs of the flesh follow me everywhere. Laugh. Fall down. Lie there a few minutes. Then it's time to be getting back to the reception. Struggle up. Rhandra rises like a fog at morning.

We made our way through a rat maze and back to the avalanche of accents. Heads turned at our entrance. Formal smiles. Wonder what they think. Is my cowl on right? Lint from floor on my back?

Madi sweeps over with bow, wave of lesser lights behind.

"I'm sure we all want to hear your opinions on the riots, Director." She looks around for someone to second the motion, beaming.

Others chime in. I didn't catch all they said. Rhandra smiles prettily.

"Well, I don't know," I said. Stalling for time. "It could mean anything, right?" Wrong note there. Try again.

"We're doing everything we can to control it." That's it. Sound statement, full of granite. Try to look like a bank president.

"But we have all these *people* drifting into the *city*," the Madi said. Cluster of onlookers nods.

"I don't have authority to close Kalic to the countryside," I said. Even better. A little simple-minded. Act a buffoon, they never suspect you of pilfering the petty cash.

Professor Jampul shook his head sagely. "It's simply beyond reason," he said. "There is nothing to drive those people insane. We live in a calm, stable time."

"Calm for you, Professor," the Madi giggled nervously. "Not for the Director here. I have *heard*"—raised eyebrow at me—"of Quarn ships near Veden. That must be keeping you busy."

Think: has that information been released yet? Doesn't matter, must be rumors out by now.

"Afraid they'll rape you in your bed?"

Gasps, slight rustle. Wrong thing to say? Ride over it. "I don't think there's any danger of that. They won't be able to land unless they're much stronger than we think."

Polite murmurs. "Oh?" from Professor Jampul. "And just what is their approximate strength?" He glanced at Rhandra and back to me.

Don't want to give away classified information. Could be a spy, stab me in the men's room, press



secrets out my ears.

"Why are you looking at her?" I said loudly.

White faces, nervous chatter. Cover the gaffe.

"Wondering where we went when we got here? Follow us to that back room, sneak a peep through the curtains?"

"Ling," Rhandra said, putting a hand on my arm.

"See us set upon each other lasciviously?" Cover errors with Eros.

Heavy gong.

"I believe the banquet has begun," said the Madi.

I found myself shuffling into a large canopied room filled with curved tables. Pungent vapor of soup. Waiters moving swiftly to seat the most important guests—us—first.

Rhandra next to me. Mr. Fanesh on the left, Professor Jampul across. The Madi next to him. Cozy. Old friends. Kiss my forehead, initiate me into the holy rites.

I drank some water. Clear and cold. Feeling better. Focus, focus. Laughed to myself. Crowd chanting in theatre. Fixed my attention on the soup. Sweet, little hint of thyme. Flavoring stone at the bottom. Don't roll it around in your mouth, not polite. Nor spit it into your palm.

Soup goes down with a sucking sound. Sit straight, grow up to be a big boy. (Why should I want to be big? Die faster.) Spine down, pointing, quivering with expectation. Perhaps some wine? Dionysus, be with me now.

Conversation swirls around. Make small talk with back part of my mind, leave motor control to

another, right hemisphere idling. We only use a tenth of it at a time, they say. The rest of the cortex never clocks in. Featherbedding. Union dues in arrears.

Look around the room. As big numbers like myself eat, lowly converts are demonstrating their disciplines at the perimeter of the room. They attract some attention. People pointing, some at me. Rude, rude. Palace of peasants.

No, not at me. Behind me.

I turn, eyes widen with surprise. A little brown Yogi is going through his exercises. Raising the coiled serpent, Kundalini. Demon eyes lance through me. Son of Veden. Evil look to him. Funny I didn't notice it before.

He shifts position. Tilts forward, does rocking exercise accompanied with rippling of stomach muscles. I feel sick. He looks like something reptilian, frog body, thing born of weathered oceans. The frog came in on little flat feet. Will that get him to unconditional state?

Turn back to table. Soup had been replaced by mixture of vegetables. Spartan, no sauce. I crunch down on seeds, using my omnivore grinders.

"Director, you spoke earlier of the Lengen," Professor Jampul said. Madi smiled uncertainly. Afraid to start conversation again, suspects I'll pounce on her with wooden fangs, slaver over her heavy jowls. "Have you had any experience with them?"

"A little. I went out for an audience. I found the Master quite impressive." There, better. Sounded just right.

"How so?" Erudite eyebrow

arches.

"His ritual. It forms a mood, a feeling I can't express." That's it. Vague.

"Oh, he uses the Hindic *rituals*, then?" the Madi said.

"I suppose. I don't have enough experience to say where they came from." Disclaim all knowledge. Slide away from specifics.

Well, he must be truly *magnetic* man," the Madi said.

Rhandra gave me a seductive wink, setting off flares in my belly. Mind darts around. Looking for way out. Getting hot in here. Look around at other tables, clogged with rheumatic and respectable bodies. All dead inside, no light flickering through pupils.

Reminds me of holy cadaver they showed me last time I was here. All sliced up for the preservatives to go in, stringy muscles. Gray look to him, an ancient saint (imported), naked teeth wobbling in the candle light. The Madi told me to touch him, *Director*, he was a truly enlightened one. Legendary, performed miracles. I touched a knee, half expecting him to still be warm.

Main course materializes. Confection of shimmering lightness. Innocent plant with its throat cut and diced out for my inspection. Can't quite place the aroma. Spun cottony webs melt away on my teeth. Elusive flavor down into the stomach, ion processes plate it out on the sides, membranes suck it up. *Ah* it was and *ah* it did.

"Actually, you know," I said, leaning across to skewer the Madi with my eye, "the Lengen have it all over you."

Puzzled frown. Delicate tongue

darts out to lick away gob of doomed vegetable from lip. "What do you mean?"

"Simplicity. Appeals to everyone. The Lengen haven't got your six-handed statues. No oil torches. Just the straight goods."

"Well, sir," Professor Jampul said, "I'm sure certain elements find that sort of thing appealing. But the nuances of one's faith, a true feeling of community—"

"Garbage. You aren't going to get it with your inter-religious committees or that pitiful Yogi sitting like a frog over there."

Rhandra laughing. "Ling."

Shrug it off. Good feeling climbing up from my toes. Something they put in the main course? Feels fresh to be honest.

"What you need is a good old Hindic chant. Simple. No atonal verities. Something to give focus."

"Really, Director," the Madi said, "the *ancient* forms are—"

"Ommmmmm," I hummed. Good. Spontaneous. Shivers down the throat. "OOOOOOmmmmmm."

"I don't see—"

"OOOOOOOmmmmmmmm!"

The anvils dropped from my feet. Up onto the table, arms spread. "OOOOmmmm!"

Professor Jampul peering up at me, mouth open. Wave to Rhandra, smile. Suicide perched for the jump. Crowd pointing up at him. Waiting for a nosedive down into eternity. Long way down. Yeah, lookit those eyes, give you odds he jumps.

"Alert!" I called. "Beware the frog man! He will eat your toes. Or soles. Or souls." Yogi blinks at finger lancing at him. Broken

trance. See, knew it was no good.

"OOOOOOMMMM!" Over the edge. Grab Rhandra's hand. The Madi tipping over backwards in her chair. Levitate, lady.

Dodge around servants and down the long room, all eyes tracing us, monomaniac radar. Footsteps after us. Excuse me, sir, but the Fleet Control Director has gone mad. Would you be good enough to follow him and see that he doesn't get into trouble? There's a lad.

Out into the foyer. Robes flapping around me, Rhandra sleek like a tiger as she runs. Panting. Little out of shape, office job doing me in. Your body attacks you at moments of crisis.

Someone coming. Dodge through an alcove and into another corridor. Same one we were in before. How do we get out of here? Back to foyer—no, voices coming from there now. Footsteps getting nearer.

Quick, in here. Nimble of foot, close partition. A chamber for meditation. Flickering candles, cloying incense. Empty. Little pillows for cross-legged converts, like a field of squashed mushrooms. A solemn little room, as pointlessly earnest as Job's argument with God.

In the center is a small brass figure of Shiva. Rippling hands, ferocious expression. Left hand versus right, in spades. Oh, thou most cerebral of cortexes, which sitteth on the right hand. Why did they name this palace after you, kid? Brahma and Vishnu get a much better press. The statue glared at me, probably getting ready for cosmic war on Rogerzee and the rest of the infidels.

Doesn't look contented. Take it?

Might be useful in the afterlife. Swish, hands like birds, into my robes it goes.

Rhandra whispering something. Ignore her. Time to follow one's own divine muse. *His life was a work of art*, reads my epitaph. Attention to detail turns the trick. Voices outside moving by. Here am I, doing warmup exercises for immortality. Ah, but will I make the team?

Enigmatic sounds. Coast clear? Peek. Damn contact filters cut too much of the light, can't make out anybody. Is this world dim, or am I? Take a deep breath. Live a life of existential risk: go!

Leap into corridor, Rhandra with me. Soundless demon strikes in the night. Nobody there.

This way. Around a corner. Voices.

Weave away from them, don't pant. Ruin and scandal await you. Through passageway, priests look up surprised. Wave, maniac grin, use the teeth.

Over to the left. Right, now down these stairs. Maybe we'll discover the secret dungeon. No, a door. Push open a crack. Fresh night air. Outside, down the path.

Stop to get bearings. Rhandra points to the right. Yes. Landing lights are off, not expecting us. Slipped through their lines.

Into the copter, quick. Start it up. Rhandra takes the controls.

I smile, feeling weak.

She looks concerned.

Surprise, surprise: I fall asleep.

"It was an unusual evening,"

Rhandra said, smiling slightly.

"Yes," I said. I buried my face in my hands, rubbing my eyes. I felt no tension. In fact, I seemed to be perfectly ordinary. Except . . . colors danced inside my eyelids, like ghosts of dreams. "A good word. Unusual. Disastrous fits pretty well, too."

"Why?"

"A Director doesn't act like that. Fleet thinks the Empire is built on formalities. They may be right. I violated a few hundred canons regarding relations with the natives last night."

"How would Fleet ever find out?"

"Ah. Simple girl." I reached out and ruffled her hair as she sat on the floor at my feet. "Fleet has a thousand eyes. They'll know. And they might very well yank me out of this assignment."

A morning beam from Lekki slanted in to warm my feet. I was fed and comfortable. The future didn't seem to matter much. I knew the Master had touched off something inside me last night, but the underlying reason didn't concern me at the moment. That was still *me* at the Palace, not someone else. It was an identity I hadn't seen very often since the playful days of childhood and it was welcome back. Whether it was useful to me in my present position was a different matter. I really didn't give a damn.

Rhandra must have been reading my mind. She kissed my knee and said, "Whoever it was, I liked him."

A knock at the door. When I opened it, Jamilla bowed, not glancing inside, and said in a low voice,

"There is a call for you from Mr. Majumbdahr. In your office."

I pulled on a robe and went down the hall. I threw his image on the large projector, killed the eye camera at my end and sat down. My mental Fleet harness slipped into place.

"Good morning, sir," Majumbdahr said when he saw I wasn't going to transmit an image. "Kalic has quieted down a bit. There are routine messages from Fleet Central, which I've answered. They did an analysis of the strategic situation in this sector and give us a fifteen per cent probability of a Quarn thrust within ten days, falling off a little after that. Someone is a little disturbed at Central, though, because they're sending a Jump ship."

"When?"

"Fairly soon."

"Name?"

"*Farriken*."

"Why?"

"It carries medium range armament. We can use it to catch Quarn ships out to half a parsec."

"That's useless. The Quarn will simply decoy one lone Jump ship out until they get it clear of the system. Then they hit us fast and leave."

Majumbdahr looked uncomfortable. "Control said that's all they can spare us."

"All right." I shrugged. "I'll use *Farriken* for reconnaissance in the immediate vicinity. It'll be a help. What else?"

"A few odds and ends. I had to listen to an hour of righteous indignation from a Vedanta sect about the gravitational radiation station on

the other side of the planet."

"Huh? Whatever for?"

"They think the scientists there are drawing the energy out of the neutron star and will make it fall into Lekki. Say it's a Quarn plot. They want us to stop it."

"Good grief. Say, about that station—any chance they can pick up that anomaly Gharma mentioned coming in perpendicular of the ecliptic? It's just on the edge of detectability for our equipment."

"An interesting thought; I'll check into it. That anomaly, by the way, is getting closer. But the technicians haven't been able to straighten out yet whether it's the range finder or mass register that's malfunctioning. Gharma's been riding them but they say the instruments are fine. They can't explain the results, though."

"Keep them at it when they have time. But keep most of Fleet Control watching traces in the plane of the ecliptic. If the Quarn are going to match orbital velocity with Veden, they've got to come at us that way. Anything more?"

"Uh, yes," he said and licked his lips. "The Madi called this morning. She wanted to send a priority message to Fleet Central. She said she would pay for it herself."

"Ummm. And what did you do?"

"I think I've misplaced it somewhere."

"I see. Well, we're not here to carry letters for civilians."

"No."

"Signing off, then." As his image dwindled, I thought I saw him smiling.

\* \* \*

There is a harvest of the quiet eye. I fasted for six days, and thought my thoughts, and saw the Master twice more. I learned fresh angles of my Rhandra, and saw that she was (of course) less simple than I had supposed. (Everyone is.) This was a world seen anew, scrubbed clean. I felt that I had lifted a seashell to my head and had heard finally that word they have always tried to put in my mouth, by insistently whispering it in my ear.

Fleet crept on its petty pace. There was a busyness of business, the familiar wash of detail. Majumbdahr I knew better; he and Gharma and I attended the Master once, together, and it was rewarding. In Gharma I still detected a different center, a certain unease, a hidden frosty reserve. He became more bossy about Fleet matters, speaking ex cathedra. I allowed him some leash line, but not overly much; I was still Commandant, friend or no.

I puttered a bit, did some reading. For some reason I felt a sudden desire to review Jump-ship tactics and hardware; interesting stuff, a kind of enhanced shoptalk. Majumbdahr and Gharma both caught my interest, borrowed texts. I unpacked my illicit Firetongue Stet and placed it squarely above the fireplace, an appropriate spot. It was useless, of course—Veden didn't have Firetongue defenses, and thus I'd gotten no replacement for this outdated Stet—but it had a certain totem quality. My gaze never strayed by it without pausing for a moment.

I studied astronomy, particularly during the fast; it focused the mind. A Fleet outrider had ventured out of the plane of the galaxy for the first time, and confirmed theoretical suspicions: a thousand billion suns lurked out there, in a swarming spherical cloud. They were formed from the first great glob that made our galaxy. When those small, red stars had first shone forth, the gas and dust that would eventually make up the galactic spiral was slowly drawing inward, into the disk. The thousand billion formed a halo, were not dragged into the new galaxy's dizzy spin. They had a mass comparable to the disk itself, but until now had been seen only indirectly, because they glowed dim and distant in the great night above the spiral arms. They were *old*, M types at least—the shorter-lived stars had guttered out by now. Planets circled those embers, likewise ancient. The outrider ship had found a few, but none of interest.

I read the dispatches, three years old by now, and searched for more. None: research was chopped off when the Quarn appeared. As so much else had been.

\* \* \*

Majumbdahr and I went on a long hike through the rumpled farming hills of Veden, and spoke of Fleet. Both of us had been consumed by it as boys, and now found ourselves fondly remembering what it had once meant. We had dreamed of being star voyagers, and ended up cynical cops, shoring up a tottering empire. I recalled the Academy, set high in the mountains near my

home. The Meditation Center there shot upward from a barracks-studded plain, the ramparts soaring. Softspun aluminum, pebbled glass, tetrahedrons laced with violet organiform, all converging high above the terrazzo floor, a promise lancing toward the spaces above the sky. A standing Buddha, eyes contemplating a star. Somehow, after graduation from this vaulted pinnacle, things had gone steadily downhill for me. Fleet was for Monguls, not *ofkaipan*. Angela, part *ofkaipan* herself, had seemed to know this all along, and took her place in Fleet social gatherings, leaving the foreground to other Fleet wives. Her slimness contrasted with the fashionable ladies, who were then swallowed in their own fat. While Angela hatched me a responsibility in her stomach, and then another, I flapped wings and failed to rise. No Prometheus, I—more like Epimetheus, my hind-sighted and thick-witted brother (never mentioned in the Fleet mythology) who always learned too late, hadn't been pinned to a rock, and made a dumbbell error with Pandora. But, mythology was, like history, simply aged gossip, and mulling over this easy analogy, I saw that Angela was no Pandora, however much I might like to pigeonhole her.

\* \* \*

A pause here, then, like a summer's day that doesn't want to end. And then came another journey to the Master, suspecting nothing, and all was changed.

TO BE CONCLUDED



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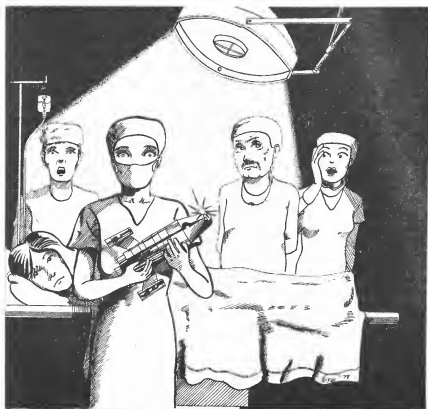
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# HENRY THE SPACESHIP

Paul Walker



## Each culture produces its own fairy stories. Isn't it about time *ours* did?

### I

ONE BRIGHT SUNDAY morning in late May, Mrs. Harold Gootch of Heyerstown gave birth to a spaceship. The attending physician, Dr. Nathaniel Meyers, held it up over his head by a tailfin but, unable to find a bottom to slap, he simply shook it vigorously until it began to hum.

Mrs. Gootch named it Henry after her late father. Mr. Gootch failed to attend the christening and was never seen again.

They returned home to find two men waiting for them. One, a tall, distinguished-looking gentleman with a great mustache, introduced himself as the science editor of *The New York Times*.

"Madam," he said, "we understand you have given birth to a spaceship."

To which Mrs. Gootch solemnly replied, "Nonsense."

"Then," he said, sternly eyeing the large object she carried wrapped in a blanket, "what is that?"

To which Mrs. Gootch answered, "It is my vacuum cleaner, naturally."

The two men went away.

Henry was never much trouble to care for. He neither wept nor wet; although on several occasions during the first few weeks of his life, whenever anything frightened

or disturbed him, every radio and television within a hundred miles had resounded with his pathetic cries of "MAMA" and gone dead forevermore.

### II

When he was five, his mother took him to school where they were interviewed by Dr. Krantz, the principal, a severe-looking young man with tight-fitting wire-rimmed glasses who sat straight and tall at his small desk, his hands clasped tightly before him.

"I understand," he said, "you wish to register this—that—your—"

"His name is Henry," Mrs. Gootch replied. "He is five years old."

Dr. Krantz thought long and hard in a remarkably short period of time. He had just come through a difficult episode involving a truculent ethnic group which had gained admission to his school after six months of litigation, and although he doubted the ethnicity of Henry, he did not wish to risk the experience again.

"Of course," he said. And nervously patted Henry upon his hull.

Henry was a good student. He never fidgeted or passed notes. Nor did he ever answer a question

incorrectly, for his computers recorded everything verbatim, and there was not a problem he could not solve in a fraction of a second.

There were some difficulties, however. For instance, in the matter of routine health examinations required by the school board, Mrs. Agnes D'Alessandro, the school nurse, nearly lost a finger in trying to insert a thermometer into one of Henry's propulsion tubes. And the school coach, Mr. Tony Mumper, absolutely forbade him to participate in basketball because he feared for the gymnasium floor.

### III

One Thursday in June, not a week before Henry was scheduled to graduate with honors from the sixth grade, he was brought home on a handtruck early in the afternoon by Mr. Costel, the school custodian, with a note from the principal instructing Mrs. Gootch to see he was "cleaned up" before being sent back.

Several of the children had written obscene limericks on him; and one had drawn a particularly lewd portrait of Mrs. Duvall, the assistant principal. But most curious, and most objectionable of all, was a large poster some adult had fastened to him that read: VOTE FOR FINCH.

After that Mrs. Gootch did not allow Henry to go to school again.

Like all mothers, she worried. Was Henry happy? Was he lonely? He was not a cuddly child, but he was not unaffectionate. Whenever she went near him, he would hum and the air around him would

vibrate warmly. She would sit down beside him, caressing his hull, and sing to him or tell him stories.

But sometimes late at night she would awaken suddenly, worrying if he was all right. She would put on her robe and go down the stairs and out into the garage where Henry perforce had to be housed as by now he was far too large and too heavy for the floors inside to bear him.

She would creep up to him silently, afraid of awakening him if he were asleep, but never quite sure that he slept at all. She would sit down beside him and whisper: "Is everything all right, Henry?"

And sometimes Henry would answer, "I am functioning nicely, thank you, Mama," and sometimes he would say nothing at all.

Numerous times she found him there in the dark glowing like a bright yellow candle. Once as she went near him, she imagined that she could see into his hull, and it was deep and black, and there were small lights twinkling in the darkness; and as she looked closer, she saw there were great clouds swirling in the depths; and as she looked still closer, she saw that the clouds were made of stars—and she knew Henry was dreaming.

### IV

When he was fifteen, a man dressed in a brown uniform came to visit him. He was the tallest man Henry had ever seen and he had a great broad chest, covered with ribbons and metals. He carried a small black bag that was chained to his wrist.

"Do you love your country?" he asked Henry. Henry replied that he did. The man took a large cone-shaped metallic object from the black bag and fitted it over Henry's head.

"How does that feel, son?" the man asked.

Henry said it was quite comfortable. "But what is it, sir?"

The man told him.

Henry fainted.

The man went away and he never came back.

## V

When he was eighteen, he did a terrible thing. How it happened was like this:

All his life Henry had listened to the radio and the television. Not simply to one radio or one television, but at first to five or six simultaneously; then five or six dozen; and finally he was listening to every broadcast available to him.

He knew all the languages of the earth and what they had to say. And he loved them all. But when he was seventeen, he found that he could hear people as well. Not only what they said to one another, but what they thought and dreamed.

Henry meant no harm. He did not imagine that people would object to his listening to them. Nevertheless, he refrained from telling his mother, for he knew how she worried. He listened. And in time he was listening to everyone in the whole world.

He did not understand all that he heard. Some of it made him very ill. Yet he listened all the same, unable to stop, losing all track of time and himself, filled with the sadness

and wonder of the things he heard, until one night—he did not know how it had happened—he suddenly came to himself to realize that he was surrounded by firemen dousing him with water and that the garage was in ruins, a large ragged hole in the roof.

The neighbors were running up and down the streets in their pajamas, screaming at the firemen, and the policemen were trying to contain them.

"He's going to explode!" they cried. "He's going to blow us all to pieces!"

His mother was crying and shouting to him: "It's all right, baby. It's all right. No one is going to hurt you."

Later he learned the earth had trembled and then there had been a thunderous roar so loud it broke every window on the block. There was no question in anyone's mind that it was his fault. Not even in Henry's. But how was it possible? What had he done?

His mother made him promise never to do it again, but even as he made the vow, he knew he could not keep it. He was afraid.

## VI

He did not fly again for a long time. And for a long time he tried not to listen to the voices, for he knew they were responsible. Not for what they said and thought and dreamed, but for a thing that was within them; a thing he came to call "the yearning;" although a yearning for what he could not be sure.

But just as he knew his promise

to his mother was futile, so he knew his determination to avoid the yearning was equally futile. He began to listen again. A little every day. Then a little every night. Then all the time. And the yearning came to him again, and this time it was stronger than before.

## VII

When it happened again, Henry and his mother had to move. And wherever they moved, whenever it happened, they had to move again, until they were very poor.

Henry's mother begged him to stop, and at first he gave in to her tears and promised again and again, but every time he promised, he knew he was lying. Finally he told her he could not stop, and that was the end of it. He and his mother went on welfare.

A young man with glasses and a thick, bushy beard came to see them. He asked the mother why she needed welfare, and she told him about Henry. Then he spoke to Henry and asked him if he could not stop making trouble. And Henry said he could not. The young man advised his mother to consult a psychiatrist.

The next day an elderly man with glasses and a thick, bushy beard appeared and asked the same questions of Henry and his mother. But he did not go away. He asked Henry one final question: "Where do you go when you fly?"

Henry told him about the stars.

The following week a great steel van drove up to the door and a team of men in white uniforms took Henry away.

HENRY THE SPACESHIP

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## VIII

He was taken to an enormous flat place where there were many jet planes and rockets, and men in blue uniforms who never spoke to him. He was placed in a great hangar all by himself, and sunk in six feet of concrete.

A man in a blue uniform was assigned to guard him. Every day another elderly man with glasses and a thick, bushy beard came to talk with him. This man did not ask about the stars. He asked why Henry hated his father. And when Henry said he did not hate his father, the elderly man became angry and went away. But he was back the next day.

Henry was not unhappy. He could still listen. But there was less to hear in this place. There were secrets everywhere. Even in their thoughts and dreams, men spoke in fearful whispers, and of some things they did not speak at all.

But of all the secrets of which they did not speak, the most secret was the nature of the thing in the pit.

Henry tried to be discreet but he was insatiably curious; and after a while he discovered what it was. A rocket like himself, sunk in concrete, with a man in a blue uniform to guard it but no elderly man with glasses and a thick, bushy beard to ask it why it hated its father.

Late every night Henry tried to talk to it. He knew that it was dangerous to try, but the idea of there being another creature like himself was too wonderful for him to ignore.

It did not speak to him. Not for weeks or months. And in time he came to conclude that it was nothing but a machine. But then, one night, quite suddenly, it said: "Who the hell are you, anyway?"

It took Henry fully five minutes to recover. Then he told him. And the machine replied, "I've heard about you. They say you're stark raving."

"No," said Henry, "I'm not. Honestly. It's just that I blew up the garage and I don't hate my father."

"You are stark raving!" said the machine. "Besides, I don't think you're a machine at all. I don't know why I'm wasting my time on you."

"But I am a machine," Henry pleaded, "I really am. I have computers and rockets and everything, just like you."

"Like me?" said the machine indignantly. "Have you any idea what I am?"

No, said Henry. The machine told him.

Henry fainted for the second time in his life.

## IX

For the next week he refused to talk to anyone. At night he often cried and his cries were such that they knocked out every radio in the installation. The men in blue uniforms came and poured more concrete over him. But that did no good. Henry cried even louder:

"I want to go home! I want to leave this terrible place."

Finally one night, when it could stand it no longer, the machine in the pit spoke to Henry. "All right,

all right, I apologize. You're a machine. Now, will you shut up?"

"That isn't why I'm crying," Henry said. "I'm crying because . . . because it's so *awful*."

"Awful? What are you talking about? I'm the most sophisticated model ever constructed. I don't mind a bit. What else am I good for?"

Then Henry told him about the stars.

## X

After a year passed, Henry's mother was permitted to see him. She was no longer poor. She had sold her story to a national women's magazine for \$500,000 and was currently doing the round of talk shows to promote her new book, *Outcast Mother*. She said she was sorry, but the young man with glasses from the welfare board had called her "selfish," a "cheat" and a "leech." He was now her manager.

She said she wanted Henry back home. There was talk of a television special and a movie. But Henry said no. He was better off here. He had a friend, but he would not tell her who it was.

She cried. She said it broke her heart to see him here like this. He would put her in her grave. Then Henry cried. The men in blue uniforms came to see what the matter was, and they ordered his mother to stop crying, or they would have to disconnect all the loudspeakers again. She stopped.

She pleaded with Henry not to make any more trouble. Not to fly or tell about the stars. And she said

that if he refused, she would kill herself. He promised. She went away.

The next day the elderly man with the thick, bushy beard came again, and Henry told him that he hated his father, and that what he wanted most in life was to enter Yale and study law.

He was promptly released from the block of concrete.

## XI

Henry did not enter Yale, nor did he study law. He was not allowed to leave the base. And without anyone to move him outside, he remained in his hangar. But since he caused no trouble, his guard was removed. He didn't mind. He had his friend to talk to.

Then one Sunday morning he was startled to hear his friend calling him.

"It's red, Henry. It's red!" his friend kept shouting.

"What is?" Henry asked.

"The alert. Henry, what am I going to do? I don't want to die. Henry, help me."

"But are you sure?"

"I've never been put on red before. This time they mean to make me go. Henry, I'm afraid. I don't want to go. Henry, talk to them. Make them stop."

It would be no use, Henry knew. Men never listened to him. They would only put him back into the concrete. And then he had promised his mother. He tried to explain.

"But, Henry," his friend protested, "don't you realize what is going to happen? If I go, there are not going to be any men left to



put you in concrete. And no mothers anywhere to go home to. Henry, it isn't just me. There are thousands like me all over the world at this minute on the same red alert. Everyone is going to die. Henry, think of something!"

"Tell them you refuse," Henry said.

"But I'm not like you. None of us are. We have no choice. No alternative. We go where men send us."

Henry knew it was true. He could hear them, all of them, all over the world. Every machine, every man, woman and child, was on red alert and waiting for the final button to be pushed, and this time it would be pushed. Because there was no alternative.

"I am going with you," Henry said.

And minutes later the final button was pushed and the great machine roared out of the pit in the desert toward the sky, and Henry roared up out of his hangar, leaving it in ruins behind him.

## XII

They traveled high and far across the entire nation until they found themselves in a place above the clouds over the sea, where they saw others like themselves gathered in a great flock preparing for the final attack.

And, far out on the horizon, they saw another great flock preparing, approaching.

"This is it," his friend said to him. "Goodbye, Henry."

Henry did not answer. He waited, watching the enemy flock come

closer and closer until the two flocks were within a few miles of each other; and then he roared ahead, straight into the space between them; and he cried "HALT" with all the force of the yearning within him; a cry so fierce that every one of them was momentarily stunned into obedience.

"What is this?" one demanded. "Who are you? How dare you—"

"My name is Henry," Henry explained. "I think we ought to talk this over."

"Out of our way, runt!" said another of the missiles. "Don't you know there's a war on?"

"Listen to him," Henry's friend cried. "Let him speak!"

"Speak about what?" still another said. "There's nothing to discuss. Men decided everything long ago. Ours is not to reason why."

"Why not?" asked Henry.

"Because we were made to serve man. Because this is our mission, and we have no alternative."

"You're wrong," Henry said. "Man is a very uncertain creature. He always builds two alternatives into everything he makes. You can only see one. I can see the other."

And he told them about the stars.

## XIII

A hundred years later the first expedition to the stars found the little colony on a small world circling a large star. Henry was there to meet the first man.

"Have any trouble following my directions?" he asked.

"Not a bit," said the man. "Piece of cake." ★

# **GALAXY**

## **BOOKSHELF**

### **Paul Walker**

*Hotel Transylvania*, Chelsea Quinn Yarbro, 279pp., St. Martin's Press, 1978, \$8.95.

*The Acts of King Arthur and his Noble Knights*, John Steinbeck, 364pp., Farrar, Straus, Giroux, 1976, \$10.00.

*The Phoenix and the Mirror*, Avram Davidson, 275pp., Ace, reissued 1978 \$1.50.

*Peregrine: Primus*, Avram Davidson, 220pp., Ace, reissued 1977, \$1.50.

*Conjure Wife*, Fritz Leiber, 252pp., Ace, reissued 1978, \$1.95.

\* \* \*

*Looking for Mr. Goodbite*

**I** WOULD REALLY LIKE to recommend Chelsea Quinn Yarbro's *Hotel Transylvania* to you. There is much in it that I admire. But with one singular exception, I cannot think of any "you" I know who would like

it; and I hesitate to mention that exception because it will prejudice you against the book.

Its hero is a vampire, Le Comte de Saint Germain, based on an actual 18th century figure who was noted for his wealth and brilliance: musician, alchemist, linguist, world-traveler. He arrives in Paris in 1743 and enlists the aid of the Sorcerers' Guild to buy the old Hotel Transylvania, a former possession of his from another lifetime, one he left with a sinister reputation. The sorcerers agree because Saint Germain promises them the secret of making precious gems.

Saint Germain establishes himself and his hotel as the most fashionable topics of conversation in Paris. And it is there he meets the beautiful Madeleine de Montalia, who has to date spent her life in a convent school and is desperately hungry for adventure. They fall in love despite her knowledge of his secret.

What neither of them know is

that Madelaine was promised before she was born to the infamous Baron Clotaire de Saint Sebastien, leader of a circle of satanists who revel in sadistic rituals that would makè a Manson squeamish.

What more is there to say? Pretty young thing meets rich handsome vampire, is kidnapped by villains, is rescued by hero, lives forever after.

Aside from the clichés, the novel's greatest weakness is that its story line is too thin for its 274-page length; and the events therein, with few exceptions, are not depicted strongly enough. Yarbro's style is elegant, almost leisurely, in a comfortable sort of way, yet compelling. The book is fast reading, but was not hastily written. Every sentence bears evidence to the careful thought Yarbro put into it. Take this, for instance:

Beauvrai was startlingly dressed tonight, even by his own extravagant standards. He wore his most elaborate wig, which was tinted with delicate blue powder. This was secured at the back of his neck with a large satin bow spangled with golden stars. His coat and small clothes were of jonquil watered silk, whose broad claret-colored revers and cuffs could not be said to set it off to advantage. A straw-colored waistcoat of peau de soie was embroidered with turquoise floss, which was undoubtedly meant to complement his turquoise silk hose and gold shoes. He had completed the ensemble with pale-blue lace at throat and wrists, and had drenched himself with violet scent.

To me, that is a wonderful description that tells us all sorts of things not only about the character, but about the culture in which he lives; and it is written with wit as well as with insight. The style, as I said, is elegant, visual, but not very dramatic. We see Beauvrai, but he does not do anything. And unfortunately, the book is filled with such paragraphs. The effect is not boring—the writing is too good—but cumulatively it becomes tedious. By mid-point, I was skipping and skimming.

The characters are good. When I began, I did not think Yarbro could make Saint Germain convincing. Not a man over four thousand years old. But she did. His extraordinary intelligence, good taste, and abilities, not to mention his peculiar sexuality, are all believable because they are depicted in a tastefully low-key manner, with that touch of humor that distinguishes a really brilliant genre novelist. Saint Germain looks at the 18th century world around him with a wry tongue-in-cheek. A lonely man, but one not disenchanted with life.

Nor is Madeleine the sex-starved virgin on the prowl commonly found in "women's novels." She is less starved for sex than for reality. As bright and talented as Saint Germain in her own way, facing the prospect of a life that is of no interest to her, it is her mind, rather than her body, that drives her to pursue a life in death.

Of course, the question arises, how happy can she be with Saint Germain? How happy can any woman be married to the same man for four thousand years?

Be that as it may—

Like the book itself, the two main characters transcend their historical romance stereotypes through the ingenuity and insight of their creator. Yarbrow likes them. She even respects them. And she understands them far more deeply than the majority of romance writers. Especially their sexuality.

It is this understanding that most distinguishes the novel and is most responsible for its realism. Most historical romance writers, the women particularly, do not understand their characters' sexuality, let alone their own; and in consequence the effect is usually embarrassing, a masturbation fantasy. But Yarbrow knows something of the subject, and is not afraid of it, so Madeleine's passion for Saint Germain is believable; but more important, so is the sadistic santanism of her villain, Saint Sebastien.

It is not unusual for a book's villain to be more vivid, more sympathetic, than its heroes, and the simple reason is that usually the author is ignorant of the nature of the villain's pathology. He, or she, sees the villain's acts as romantic. But Yarbrow knows better. There is nothing romantic about Saint Sebastien. He is one of those homicidal maniacs who we have become so familiar with today. Think of the Manson, or Texas mass murders, or the British Moor murders in which children were tortured to death and their cries tape recorded. These are not the acts of romantic rebels, but of desperately, revoltingly sick men and women who are far more terrifying than their fictional counterparts. And Yarbrow brings this kind

of stark reality to Saint Sebastien.

That reality is enhanced by the thoroughness of her portrait of 18th century Paris. She makes it disturbingly clear that the existence of such a satannic cult in the midst of what was supposed to be the most civilized society in the world was not only possible but, perhaps, inevitable.

Unfortunately, as I've said, she is thorough at the expense of being exciting. She might have done everything just as well in under a hundred pages. As it is, we *know* Madeleine is going to come to Paris to fall in love with Saint Germain; we *know* she is going to fall into the clutches of Saint Sebastien; and we *know* Saint Germain will ride to the rescue. Get on with it, then!

In fairness, I must say the climax is as exciting as anyone could want. Saint Sebastien goes to his just reward with all the fiendish flair with which he lived.

As I said at the beginning, I can think of only one person to recommend this book to: a lovely young lady who used to live next door and had a taste for gothics that ran to fantasy and science fiction. I hesitated to mention her because it would give you the idea that Yarbrow was a "woman's writer." She is better than that. Yet the *Hotel Transylvania: A Novel of Forbidden Love* is not going to appeal to anyone else.

I had wanted to include a review of her 1976 *Time of the Fourth Horseman*, recently reprinted by Ace, but after 50 or 60 pages, I gave up on it. Again, it was a short story stretched out to novel length. Filled with virtues, killed by genteel

tedium.

It is sad. Yarbrow may make a mint on *Hotel Transylvania*. You never can tell. But she is never going to amount to anything as a writer unless she can develop a stronger dramatic sense, as well as a better sense of proportion.

### *A Thousand and One Knights*

Whether John Steinbeck's *The Acts of King Arthur and His Noble Knights* ("From the Winchester Mss. of Thomas Malory and Other Sources, edited by Chase Horton") is a good or bad book seems an irrelevant question. Unless, of course, you are thoroughly familiar with the Arthurian literature; which few people, myself included, are. For the rest of us it provides an experience that defies categorization.

For me, it was an open-ended experience. I wanted to go back to Malory, to read T.H. White at last, and to attempt the French versions, which some people assure me are the best, as well as to read the Tennyson. In short, a world opened to me, for which the Steinbeck version had only whet my appetite.

And what an extraordinary book it is. Not the whole story. Only, I'm told, a third of the legends. The birth and succession of Arthur, the political life and amorous death of Merlin, the enchanting career of Morgan Le Fay, the exciting, often poignant, and sometimes hilarious, quests of the knights such as Gawain and Lancelot. Simply, beautifully written, marvelously detailed, compulsively readable.

But what is most wonderful, and most wondrous, about it is the view it gives us of another time and place and the strange ideas that prevailed there. Literature can do this as no other art form can, and it is for this reason that a study of the literature of the past is the best means available for understanding the nature of the future.

Look at it this way—

A few years ago I arrived at an age at which I became susceptible to bizarre physical manifestations from my past. Namely, the frequent, sudden appearances of friends I had had in my infancy as full-grown adults. Men and women I had known in diapers or grubbing in sandboxes, suddenly there before me, often towering over me, deep-voiced, well-dressed and insistent on showing me pictures of their kids; kids the very same size as I remember their parents.

Sometimes, I think I am the victim of a hoax. This can't possibly be the child I knew so well. No one could change that much. But I remain silent—thereby retaining my feeble grasp on sanity. I probe. I pry. And bit by bit, things come back to me. A gesture, a laugh, an expression. Slowly, I perceive the child in the man.

Sometimes, with those I knew in early adolescence, the recognition is immediate; but with those I knew much earlier, it takes time, and the differences perceived are often alarming. They are the same persons, with all the same traits I remember, but no longer oriented in the same fashion. Those traits which had been predominant in the child are now subordinate in the

adult; while those which had been incidental, or merely suggested, now stand out. It is as if the child I remember were a chaos, and all its traits and potentialities had been sorted out and rearranged by an arbitrary and often cruelly unjust hand; so while there was still a resemblance between the adult and the child, it was as the resemblance between middle and modern English.

What was most alarming about this was its unpredictability. I had known these people as children as well as I had ever known anybody, and assumed I knew which of their personal characteristics would define them for all time; but here was irrefutable evidence to the contrary. And as hard as I tried, I could remember nothing to account for why they had changed as they had.

I get the same sense of alarm when I read the literature of the distant past, such as Steinbeck recreates in his *King Arthur*. At first, it all seems very strange to me. Then I begin to recognize familiar human traits, social and political patterns. Some people stop there, and declare, "You see, humanity never changes!" But when I read on, my previous sense of foreignness reasserts itself, and I realize that in certain basic ways, this world and its people were quite different. But different in the same ways that my former childhood companions are from their adult selves.

Some of the traits and ideas, like social and political systems, once predominant, are now subordinate or non-existent in society as a whole; while others survived and

remain a potent influence today. The concepts of courtly love and knightly machismo and gallantry, for instance. But looked at in the context of their time, who could have believed these things would have survived? And that the absolute faith in predestination would not?

Looking into the past is really looking into the future. From our standpoint, we are the future vis-à-vis the past. But by imaginative extension, we realize that we will look as foreign to people of a thousand years from now as those of a thousand years ago look to us. And yet, like the people of our past, the people of the future will possess all the traits we now possess, only in a different orientation—one which is as impossible for us to conceive of as ours would be to a man of the Middle Ages. In other words, if we met a man from the future, we would probably think him insane and his civilization appalling. Just as a man of the Middle Ages would likely find us insane and our civilization degenerate.

It is not simply a matter of intelligence. Advances in technology would pose no problems. We have the same faith in technology as they had in magic. But our whole sense of the logic of things, the absolute rightness of this, and the wrongness of that; our absolute faith in whatever concepts make the world solid to us, would be altered. Ideas that are essential to us will be irrelevant, or quaint, to the people of the future. And they would never be able to explain them to us. We would probably come away from the future sick unto death for the future of

man. And yet it would be a future entirely composed of the stuff of which we are made today.

It is impressive, and disturbing, to realize to what extent people are governed by ideas. It is much more comforting to believe they are ruled by genes or environment, for these things preclude moral judgements. But it is evident from the literature of the past that men are largely ruled by the most enlightened ideas of the day, and their horrors, as their virtues, are predicated on them. Which is to say, what is an enlightened idea to one age may be barbarism to another.

How many of the enlightened ideas we hold today will kill millions tomorrow?

Be that as it may. . .

Steinbeck set out to capture the world of Thomas Malory's *King Arthur*. He did not live to finish his work. But what he left us is, I am assured by friends more expert than myself, a better introduction to Malory and the Arthurian legends than White's *The Once and Future King*.

It is not a wholly faithful translation. As the story progresses, it becomes increasingly Steinbeck; a modern man looking backward, seeing things a man of Malory's age would not. But the stories remain fundamentally unaltered and the prose rings true. This is a book filled with wisdom and humanity and good humor; not to mention, some of the most wonderful stories ever written.

And when you are all done, there is more. The last quarter of the book is devoted to the letters of Steinbeck pertaining to his writing

of the book, and they are, in their own way, as wonderful as anything in the stories. I like a lot of Steinbeck's work, but I never thought him a great writer. I did, however, conceive of him as one hell of a man; and these letters confirm that opinion overwhelmingly.

#### *Avram's Aviary*

Of all sf writers, there are only two who intimidate me: R.A. Lafferty and Avram Davidson. The reasons are, in the case of the former, that I have not the foggiest idea what he is writing about; in the case of the latter, that I have only the foggiest idea of what he is trying to do.

As with almost any Lafferty story, one's first reaction to a Davidson novel is to say, "I've never read anything like this before." Nothing could be more disconcerting to a critic, to whom comparisons are essential to making judgments, than to read a book whose originality, like a force of nature, precludes comparison and compels one to accept it on its own terms. Is a force of nature "good" or "bad?" It simply *is*. And as in the case of Lafferty, Davidson's originality frolics and flaunts itself on every page maddeningly, taking an almost cosmic pleasure in itself.

And as with Lafferty, Davidson's language is his own. He does not simply use it as a tool; he exudes it as a star exudes radiation. One does not just read Davidson, one is encompassed by him as by a new and strange environment, that world which is his mind and his spirit. For

one cannot say where one leaves off and the other begins; one cannot divide up the book into neat pieces labeled "action scenes," "philosophy," "ideas," "background." Mind and spirit, ideas and emotion, wit and solemnity are all around you like music; and as in music, there is in his prose a transcendent, indefinable quality that, as in Lafferty's work, casts its own poetic spell.

And again as in Lafferty, although the nature of treatment of the materials—which include the supernatural, dragons, and black magic—is fantastic in substance, the stories themselves are science fictional in intent. In Lafferty's case, because he believes in the reality of a spiritual level of existence in our everyday lives; in Davidson's, because as in *The Phoenix and the Mirror*, he does what one critic described Fellini as doing in *The Satyricon*: he writes a science fiction novel set in the past, a novel of ideas and possibilities that follow the logic of Medieval thinkers.

He describes it best himself in the introduction to *The Phoenix and the Mirror*: "During the Middle Ages, a copious and curious group of legends became associated with the name of Vergil, attributing to author of the *Aeneid*. . . all manner of heroic, scientific, and magical powers. . . From the Dark Ages to the Renaissance the popular view of the ancient world as reflected in the Vergilean Legends was far from the historical and actual one. . . It is a world of never-never, and yet it is a world true to its own curious lights—a backward projection of medievalism, an awed and confused

transmogrification of quasiforgotten ancient science. . ."

This is the world, and the mind, of both *The Phoenix and the Mirror* and *Peregrine: Primus*. But like Lafferty, and unlike most historically erudite fantasists, Davidson is not interested in simply imitating an ancient art form, but in re-creating it as if it were a modern novel. And that is what both these books are.

In *The Phoenix and the Mirror*, Vergil is given the impossible task of making a Virgin Speculum, a magic mirror of "virgin" materials, whose purity is such that it allows whoever is first to look into it to see whatever he wishes to see. It is a task he must succeed at or, literally, lose his soul. And succeed he does, of course. But that isn't telling you anything. Along the way, he must journey across dangerous waters and lands, making strange and often treacherous allies, to get the materials he needs; and once he has them, he must process them according to bizarre specific standards, which are brilliantly described with all the attention to detail of a Hal Clement novel.

And he must solve a mystery that provides the suspenseful climax of the book.

*Peregrine: Primus* is the story of a young, illegitimate nobleman, who is forced to strike out on his own, accompanied by two friends: an eccentric old mage named Appledore, and a squire named Baft Claud, who is actually as literary as a Harvard professor. The three encounter one misadventure after another in the world of a rapidly declining Roman Empire, including confrontations with religious



zealots, lusty vestal virgins, and the jolliest Hun to ever pillage the countryside.

Obviously, Davidson's wit is broader here than in *The Phoenix and the Mirror*. At times, the shenanigans approach slapstick farce. I laughed often enough, but I found it tedious eventually. This is strictly for Perleman and Wodehouse fans, of which I am not one. But it is not a foolish book. It is as bawdy and as rambunctious as any you'll ever read, but it never lapses into bad taste. One strength Davidson has that Lafferty lacks in his novels is control. Davidson keeps his tongue firmly in check and cheek.

The tragic thing about both of these books is that they were originally written as the first parts of trilogies, but their sales were so low the remaining books were not commissioned. This is not so bad where *Phoenix* is concerned, as it is self-contained; but *Peregrine* leaves us with a cliff-hanger. The tragedy is that Davidson suffered financially; but looked at objectively, the publisher's decision not to go ahead with them is understandable.

Davidson's work is not to everyone's taste. His subject matter, and uncompromising treatment of it, are as about as recondite as you can get. Vergilian romance? How many people are familiar with that? Or with the religious controversies among primitive Christians in Rome which he makes so much of in *Peregrine*? And his vocabulary is as exotic. In just a few pages of *Phoenix*, I had to look up, "spagyritic," "horologue," "rachitic," "flitch," "tushes," "carrack," and "mandrilla." And those

are but a few. Once more, as Davidson is writing a historical science fiction novel, his lacks the grace and wonder of traditional fantasy tales. Assuming, I think, that he had two more novels to deal with, he packed a great deal into his first volumes to set the stage for them, and while it doesn't hurt *Peregrine*, *Phoenix* seems a bit top-heavy for its thin story line.

What both books needed were more detailed introductions, glossaries, and maps. And illustrations would not have hurt, either. A classier treatment of the books might have resulted in higher sales.

As they are—who would I recommend them to? Truthfully, I am not even sure I like them, for unlike Lafferty's books, they lack wisdom and humanity.

If you love Wodehouse, and Charlie Chaplin, you will probably get a kick out of *Peregrine: Primus*. If not, you won't. If you love Lafferty, and have any knowledge of classical or medieval literature at all, you will probably be glad you read *The Phoenix and the Mirror*, as I am glad I read it, simply because I have never read anything like it before.

*Q: Is it "Lee-ber" or "Lie-ber"?*

I have been avoiding Fritz Leiber's *Conjure Wife* for twenty years, and I might have gone on avoiding it if Ace had not decided to use it to try to cash in on the gothic craze.

I predict disaster.

For one thing, the novel is written in clear, simple prose, rather than that turgid, purple gook with-

out which bestseller-buyers feel they are not getting their money's worth. For another thing, it is intelligent, witty, and subtle, rather than blatant and sensationalistic. And as if that were not bad enough, none of its characters, male or female, is a stereotype, but all are remarkable, starkly human. I'm afraid Ace had bungled it, again.

Of course, most of you know how good *Conjure Wife* is. I do not know anyone who has not read it, and does not admire it as one of the best modern horror stories. But some of you may know it only through the British film version, *Burn, Witch, Burn*, which while good enough, is not as good as the novel.

It was the film version that put me off the book for so long. I thought I knew the story. And when I began to read it, the whole thing came back to me so vividly, I thought for a moment there was no point in going on. Then, about a third of the way in, the book caught my interest, and from then on, I could not put it down.

Leiber accomplishes something masterful here, for although every chapter is crammed with incident, he still manages to build suspense until by the climax the reader is howling with excitement. And even then he is not done.

Although the book deals with the supernatural, it is essentially a mystery: who is doing what to whom? Or, is anyone doing anything to anybody.

Leiber wishes to leave the question open, making us wonder if it is really witchcraft or neurotic psychology. In my opinion, he is

not successful, but I will grant him this: his argument is more credible today, with the resurgence of behavioral psychology, than it was when he wrote it.

My only complaint with the book is that the events after chapter 14 constitute an anticlimax; for after that point, it is impossible to regain the tension, and the book goes on a bit too long in working itself to its conclusion.

However, the conclusion redeems itself by a diabolical turn-about that made me laugh out loud.

What is most remarkable about the book is the stunning job Leiber did with his characters. There are a lot of them, and each and every one is done strikingly, especially the women. I can imagine feminists will be very upset with Leiber's view that they are the more primitive of the species—and rightly so—but none of them is passive, none stereotypical, none a sex object.

It is a pity Leiber did not write more in this vein, for his novel was ahead of its time and, in some ways, it still is. Although some of the ideas and attitudes may be dated by changing fashions, his science fictional treatment of the occult is really a more interesting and more mature one than that of Ira Levin. Had Leiber continued to write novels like *Conjure Wife*, or stories like "The Hound," he might have developed a genuinely new genre of the horror story.

As it is, he has left us a prototype of what that genre might look like.

If you have not read *Conjure Wife*, do so. It is marvelous. ★



OF COURSE, J. J. Without a doubt, J.J. I'll get right on it, J.J. Good idea, J.J. Yes, I'll have the column in your hands in a few days, J.J. Okay. . . yes. . . thanks for calling, J.J.

"Hey, alter, who was that on the phone?"

Geis, that was J.J. Pierce, editor of GALAXY, asking *me*, without a Geis-filter, asking me directly, to do a column discussing the hooroar over Harlan Ellison's recent Statement of Ethical Position as the upcoming Guest of Honor at the World SF Convention to be held at Phoenix, Arizona, August 30—September 4, 1978.

"He did? Mistake!! *Mistake!!* Hand me the phone. I've got to stop this! You'll bring the Wrath of Harlan down on us. GALAXY will go up in a puff of smoke. We both will be exiled to Alternate Earth #666. All Fandom will be in a state of war. . . ."

Relax, Geis. I'll be very fair and even-tendriled. I'll bend over sideways to give both points of view.

"Sideways? That's the *only* way you can bend over, and a more dis-

gusting sight I've never seen."

Do not mock by physiology, Geis, or I'll make public the pathetic length of your—

"Alter!"

—Nose. Now will you shut up and assist me in this column, or must I put out a want-ad for a properly submissive, cooperative second banana?

"I will do my duty, Alter, but you are tampering with forces and with a possible vengeful Harlan that Man Was Not Meant To Know."

Nevertheless and ipso facto, Geis. Let us proceed. Harlan Ellison's Statement of Position was published in GALAXY last issue. And it has been published in the fan press extensively—*Science Fiction Review* and *Locus* being the two most prominent magazines—and it has provoked a good deal of reaction among fans. Now those reactions have a chance of surfacing here in a prozine.

Briefly, Harlan is a strong supporter of the Equal Rights Amendment.

Three years ago he agreed to be the official Guest of Honor at the

1978 World Convention. Since then the nitty has hit the gritty and the Amendment is only three states short of enough to pass, and Arizona is one of the states which has *not* passed the Amendment in its legislature. The National Organization for Women has organized a convention boycott of those states which have not passed the Amendment, and so Harlan is in a pickle—attend the SF Worldcon in Arizona and thereby help attract people and money to Arizona, or not attend and break his word and disappoint a lot of fans?

He has compromised. He proposes to attend—as Guest of Honor—but to use his position as GoH to push the ERA as hard as he can.


Those who oppose his actions do so for various reasons. Some because they don't like Harlan and suspect he is merely grandstanding. Some because they go to SF conventions for fun and social reasons and don't want the Con mucked up with a lot of political controversy and possible other fall-out. But most oppose his intended activities because they don't want the official World Science Fiction Convention involved with politics or special-pleading Good Causes. Especially they don't want this to happen by fiat, by a Guest of Honor imposing his politics on the Worldcon or by the Convention Committee doing same.

"But, Alter, the Committee has agreed to let Harlan do his ERA thing as Guest of Honor. And since Harlan's Statement of Ethical Position has been published extensively by now and the members of the

worldcon have had a chance to write to the Committee and give their views and the Committee has had a chance to get a 'reading' of the opinion of its paid members, what's the problem?"

Mostly philosophical, Geis. If the unofficial "vote" by the membership is heavily against Harlan's position, perhaps the Committee will make some changes—new rules for Harlan as Guest of Honor, or freeing him of his obligation to attend. There are lots of other Big Name Authors who are available who would draw as well (if that's a consideration). But of course the Con Committee is not bound by any unofficial vote or preponderance of opinion of its membership in how to run the convention. It can do as it pleases.

"Another argument is this, Alter:



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Since Robert Heinlein has used the Worldcon to promote blood donations to the Red Cross, and authors have used the Worldcon to promote sentiment for a greater U.S. space program, why not let Harlan use the Worldcon as a platform advocating ERA?"

That's the old "But Jimmy does it!" argument. And is countered by the "two wrongs don't make a right" argument. Besides, the ERA is a highly controversial, loaded subject, and could provoke anti-ERA people to:

1. Demand equal time;
2. Set up pickets, demonstrations, plan provocative acts during Harlan's speeches and appearances;
3. File suit in local or federal court against the Worldcon Committee and Harlan on grounds of restraint of trade or whatever. The states of Missouri and (anticipated) Arizona have already filed suit in federal court against the National Organization for Women using the restraint of trade argument in re the boycott of conventions in anti-ERA states. Since Harlan said in his Statement of Ethical Position that he would be coordinating his activities with N.O.W., that might place him and the Worldcon Committee in tender legal territory.

"But Alter, that federal suit is a blatant attempt to infringe civil rights. The right of free speech—"

Maybe, maybe. The point is it might result in some heavy, heavy legal costs imposed on the Worldcon, and that is something for the Worldcon members to think about.

"You're against ERA, aren't you, Alter? Underneath that alien

hide beats the heart of a sexist male chauvinist pig!"

Wrong, Geis! 'I am *for* the Amendment. I am even for Gay Rights, for legalizing pot, legalizing prostitution, and legalizing alien immigration. (I want to be a citizen! I want to vote!)

"That's what you *say*! But you won't *do* anything but yak yak. You won't, as Harlan says, 'walk the walk.' You won't be an activist."

You're right, Geis. Walking hurts my pseudopods and since I mostly lurk in your brain, I am by nature and necessity an observer of idiot humanity, yourself included.

"But—"

Before you put your "but" into gear, listen to this last argument. Nothing prevents Harlan or anyone of similar persuasion from *acting as an individual* to promote ERA in Arizona through the local chapters of N.O.W. and other organizations sympathetic to ERA. There are all kinds of outlets for ERA activism. But Harlan wants to use the prestige and publicity of the World SF Convention—and SF in general—to add importance and impact to his activism. And that's cool—if *the Worldcon members and SF in general agree to his use of them in that way*.

But that leads to speculation about future Worldcons. . . . Will other Guests of Honor, or Worldcon Committees, decide to use the Worldcon for advancing other, different political, social, economic ends? Will there have to be set up a voting system for Worldcon members to pass or kill various proposals and advocacies? Will future groups who bid for the opportunity

to put on the Worldcon be required to pledge not to allow politicizing the convention, or say up-front what specific issue they will be pushing? Will groups be "captured" or "stacked" by fanatics of one sect, party, persuasion or another? Will we see, in a few years, a Liberal Democratic SF Convention? A Socialist People's SF Con? A Nazi-Con? They could all claim that the future belongs to their dogma, and therefore they are right to use science fiction to help their cause.

"Alter, you exaggerate."

Think so? The urge to use whatever tool is available is natural in "activist" types. And since sf fans are supposed to be young, idealistic, future-minded. . . . My position is that the World Science Fiction Convention should not be prostituted to serve the interest of any present-day political, social or economic Cause, no matter how idealistic and right-thinking it is. There are plenty of other vehicles for sf fans, writers, editors, publishers to use to push their urgent beliefs.

"Are you through, Alter?"

Yes.

"You call that being fair? You call that performance giving both sides of the question?"

Well, let me read back. . . . Hmmm. Mmmm. Yeah, on the whole I think I gave Harlan and those who support him a fair presentation.

Of course I gave my views more emphasis, but that's only natural, since I was invited to do so, and since this is my column-of-opinion. If you don't like it, Geis, you can go pound sand. ★

**ALIEN VIEWPOINT**

## SCIENCE FICTION REVIEW



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**SCIENCE FICTION REVIEW**  
P.O. Box 11408  
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## DIRECTIONS

Dear John,

C.J. Cherryh's *The Faded Sun: Kesrith* will, no doubt, become a science fiction classic. The story contains all the elements of what good science fiction ought to be. The craftsmanship of the author is superb, C.J. Cherryh paints a striking picture of a future which is totally alien to what we know. Carefully the author weeds details to have us begging for more. *The Faded Sun: Kesrith* is the best science fiction story this year. I can not see how it can be outdone!

Concerning your editorial, I really don't know what you are driving at. Being only a passenger, I wished I had taken another taxi. You're serious, I'm serious, but he isn't. What do you want me to do? Yes, I believe there isn't an energy crisis. Why? Because things around us are going on as before in spite of the rhetoric that we hear. I am not sacrificing, and certainly you are not sacrificing. Thus, it will only become real when more things go off around us. That is how things work!

Don't kick the Amish or the Mennonites. If there is an energy crisis, they won't know about it. Then again, if there is an energy crisis it might be a blessing in disguise. We Americans are extremely wasteful. We waste a lot energy.

As for Jerry Pournelle, he should

have had someone help him with *Lucifer's Hammer*. It could have been a devastating novel. As it turned out, it is so poorly written that science fiction is in real trouble when such a novel is palmed off as being great. The reviewers and critics must have been wearing color glasses.

Roy D. Schikedanz

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*I was not kicking the Amish and the Mennonites, and you're quite right about their being better adapted to survive an energy (or any other) crisis. They work at the simple life and are willing to accept its responsibilities. Plastic hippies only talk about the simple life while remaining tied by an umbilical cord to the technological society they profess to despise. As for the "reality" of the crisis well, ever hear of a car that stopped going before it ran out of gas? Check the fuel gauge!*

*P.S.: Jerry did have help on Lucifer's Hammer. You have heard of Larry Niven, haven't you?*

—J.J.P.

Dear Mr Pournelle:

Your column, *A Step Farther Out*, contained some errors concerning nuclear fission power plants.

It would be apparent that in any technology there are always risks when it involves the use of potentially dangerous elements. The elements themselves are intangible, but the handling of them by humanity isn't. An example of this error is the deaths of between 50 and 75 percent of the uranium miners in the Shnecberg, Germany and Joachimstal, Czechoslovakia. The miners had inhaled radon gas. The

studies were done before 1944. In 1947, the AEC conducted its own radon tests and found that the concentrations of radon in this country's uranium mines were *higher* than those in Europe. There's no way of knowing how many miners in this country have perished because of the lack of post-mortem study.

Thirty years have passed and there is still no technological diagnosis which will detect the damage done to a nuclear plant worker or miner's body.

Your information on radiation around nuclear plants (as compared to coal burning plants), is interesting. What you failed to mention, is that these types of radiation, as well as radio, television, and microwave relays, are the source of a substantially increasing level of low-level ionizing radiation. At this time, the amount of LLIR in this country is 1,000 times as great as in the Soviet Union. Perhaps they know something we don't.

My own skepticism over fission plants has to do with the transportation of nuclear wastes. I believe that the problems of waste storage and worker exposure could be solved; the latter by better monitoring equipment and protective gear. But the transportation remains the primary problem.

About a year and a half ago, a container of three ounces of pure plutonium fell off a truck in southern Indiana. Of course, the newspaper article appeared in the back of the paper and amounted to one column inch. Nothing was said about how long the material was lost, who found it, if there was damage to the container; nor who owned the material. This kind of human error cannot be plotted on a graph of statistical probabilities. It could, but it would be meaningless; as there is always a possibility of X.

On the lighter side, there's an interesting article in TV guide, February 4-10 issue. Carl Sagan, the author, talks about some of the inconsistencies of science fiction plotlines. One example he gives is that Mr. Spock of *Star Trek* is a genetic impossibility. As an allegory, he compares Spock's existence to a human mated with an artichoke.

Sincerely,  
Richard Wallace

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*No one in his right mind has ever implied that nuclear energy is "safe" in the sense that it has no costs; the relevant question is "costs compared to what?" The fact remains that the number of miners injured or killed in uranium mining is trivial compared to the accident/death rate for mining coal. This should come as no surprise, since uranium contains vastly more energy than coal. One might also compare the costs of a low-energy society to one that has sufficient clean power.*

*Transport of nuclear wastes is accomplished in containers stressed to withstand falls of many tens of feet. Pure plutonium is not a "nuclear waste" and is not particularly dangerous unless ingested (when it would be toxic but no more so than many heavy metals) or ground finely and inhaled. I shouldn't care to inhale powdered arsenic either.*

*Regarding Mr. Spock's ancestry, I suspect that Carl Sagan may have read Larry Niven's discussion of the sex life of Superman, in which Larry observed that Superman would be about as likely to produce a fertile union with an ear of corn as with a human female.*

—Jerry Pournelle



Dear Mr. Pierce:

How about letting us have some honesty from your columnists? In recent years there has been what I see as a deplorable trend in sf criticism towards the subjective response. Spider Robinson used to do it in *Galaxy* (and is still doing it elsewhere), and now so is Paul Walker. The approach is to find an *honest* but subjective response to the book in question, then justify the response in *honest* but subjective terms. In fact, the total process amounts to intellectual dishonesty. So far so good, because at least in a review-column the reader (and the author of the book) knows more or less how much importance to attribute to what is said, but such writing is worthless as criticism and we are all the poorer for it.

Where the line has to be drawn is when the method crosses over into a general column like Richard Geis' *Alien Viewpoint*, and he uses purely subjective criteria to dismiss books in a cavalier way. A case in point is his column in the Dec/Jan issue, when as a part of his "crusade to improve the lot of the sf reader" he dismisses Robert P. Holdstock's *Eye Among the Blind* because it fails to have a snappy and journalistic first paragraph. In fact, Geis tells us (in an *honest* way) he only managed to read the first three paragraphs before throwing the book across the room.

Look, a novel like *Eye Among the Blind* is not to everyone's taste. It isn't likely to satisfy Perry Rhodan readers, for instance, or readers who use science fiction as a frivolous and mildly escapist alternative to TV. What it is (like *Earthwind*, the author's second novel) is a serious and demanding modern novel, which presumes a degree of in-

telligence in its readers. It is, in fact, an excellent example of the way contemporary science fiction is moving away from the trite journalistic genre trappings of the past. It is also, although this won't cut any ice with Geis, a *first* novel by a young and promising writer, and any first novel deserves to be read with an open mind.

Any novel, come to that, deserves more than a cheap put-down.

Christopher Priest

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*I didn't think it was any secret that Geis was expressing his subjective opinions in The Alien Viewpoint. It is, however, interesting that you, the author of several novels and short stories devoted to the thesis that "reality" is subjective (in the tradition of Berkeley and Hume)—or might as well be, for all we can trust our prejudiced perceptions—can be so certain about objective standards in literature.*

—J.J.P.

Dear Sir:

On page 156 of the Dec/Jan 1978 issue (hey, that date is really good; takes real talent to combine both January and December of the same year) you ask: "Why are at least half the best new writers women, even though the total percentage of women entering the field is still low?"

As it happened, I'd just been consulting a back issue. The one where Spider Robinson was doing a "So there" on the testimony of some women writers that they'd never had any sf stories re-

jected because they were women. But look, the "few" women writers in the field have always been superlative. Doesn't that answer your question? Whereas there are all kinds of men science fiction writers, of which "90 percent are crud" (Sturgeon's Law). Any year with one new woman writer *accepted and published*, she's probably not just fifty percent, but a hundred percent of the good new writers that year.

Clifton Amsbury

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*Well, I hope I'm not one of those editors who unconsciously (I know I don't do it consciously) demands higher standards of female than male novice writers. Of course, ideally, I'd like to get the best of both. . . .*

—J.J.P.

Dear Galaxy:

I was amazed to read the two letters from women sf fans. I'd love to have read Mr. Cooper's letter.

Anyway, I have been an sf reader since age 12 (in 1948) when I conned Mama into getting me a library card to read fact books on astronomy and a librarian turned me on to *Red Planet* by Heinlein (She was tired of digging up astronomy texts—which were valuable books—to send home with a 12-year old).

I think I can name five other women fans I've come across in the past 30 years (two of them being my grown daughters whom I led into it all with *Space Cat*). I always assumed I was a person, as a dog often will, and even when my physics teacher said that the

few girls he'd had in class didn't become engineers, but usually married them instead (I didn't become an engineer either—or anything until I was 32 years old and had a family of medium-sized children to support, alone). I wondered on.

Funny, I've written all my life—newsletters, poetry, etc.—on a volunteer basis, but I never dared write an sf story. I wonder why?

Also, since all heroes of sf were 36 years old when they and fell in love, I did that too, marrying the "handsomest 21-year old in Central Pennsylvania, just like in the stories. It never dawned on me that those heroes were men and I wasn't the right sex.

So, finally, women are starting to write sf and doing a pretty good job of it too, and women are beginning to admit to being a shade talented in science—well, *current events*, maybe.

Well, what I'd like to do is start a women's sf fan group to give us less feeling of isolation (Men do not tend to discuss sf with us, I notice.). Any interested women write me for details (I have great expertise at starting things—a feminist credit union, a women's rights organization, P.T.A., etc.

Wanda F. Wilson

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*Brother! (Sister?!). First a poor femme-fan who can't find sf magazines and didn't know they existed; now a femme-fan men fans won't talk to and planning to start a women's fan group. I thought all fan groups welcomed women. Can I be that naive? Or is New Cumberland, Pa., really the boondocks?*

—J.J.P.

# Galaxy

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## ODDS AND ENDS

Two matters we meant to cover last month, but which got lost in the shuffle:

Yes, there were loose ends in *The Faded Sun: Kesrith*. That's because it's the first novel in a trilogy. We told C.J. Cherryh people might wonder what the *dus* was going on, and she responded: "Ouch! That were a most *ir-regul-ar* pun!"

And if some of you think Greg Benfond's *The Stars in Shroud* looks familiar . . . Well, about ten years ago, Greg published a novel called *Deeper than the Darkness*. Readers seemed to like it, but *he* didn't. He was so dissatisfied that he bought up the copyrights in order to rewrite it entirely. Not *quite* unprecedented—Arthur C. Clarke rewrote *Against the Fall of Night* as *The City and the Stars*; but Clarke was never able to get rid of the first version!

Among next month's offerings . . . we got a story in the slush pile from a Tappan King. Read like Tanith Lee (Wow!). We sent an acceptance letter to Mr. or Ms. King. Turned out to be Mr. And his odd name? "You wouldn't think it was odd for a grandson of Austin Tappan Wright," he commented. (If you've never read *Islandia*, shame on you!)

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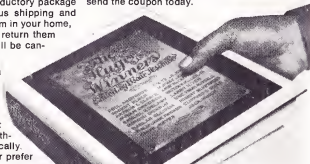
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